

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1820.—VOL. XL.

London, Saturday, July 9, 1870.

WITH (SUPPLEMENT) { STAMPED ... SIXPENCE.
UNSTAMPED... FIVEPENCE.

MR. JAMES CROFTS, STOCK AND SHAREDEALER,
NO. 1, FINCH LANE, CORNHILL.
(ESTABLISHED 1842.)

HOLDERS of mining shares DIFFICULT OF SALE in the open market may find purchasers for the same through Mr. CROFTS' agency. Also parties requiring advice how to act in the disposal or abandonment of doubtful mining stocks may profitably avail of Mr. CROFTS' long experience on the market in all cases of doubt or difficulty, legal or otherwise.

Mr. CROFTS recommends for immediate purchase GREAT ROYALTON and ROCHE CONSOLS (Tin) shares. At the latter mine large quantities of rich tin-stuff are being laid open, and a valuable mine developed.

Every description of shares BOUGHT and SOLD at NET prices.

Bankers: Metropolitan Bank.

MR. W. H. BUMPPUS, STOCK AND SHAREDEALER,
44, THREADNEEDLE STREET, LONDON, E.C., has FOR SALE the
following SHARES, free of commission:—

10 Asbestos, £6 1s.	10 East Caradon, £5 1s.	40 Prince of Wales, 16s 3d.
10 Anglo-Australian, 14s.	12 E. Grenville, £2 3s.	50 Princess Wales, 11s 9d.
50 Australian Untd., £2 3s.	15 Frank Mills, £2 3s.	60 Sweetland Crk., £4 1s.
28 Anglo-Argent., 23s 9d.	60 Frontino, 17s 9d.	25 So. Condurrow, £2 1s.
28 Bwadrain Con., 28s 9d.	10 Gt. Laxey, £1 1s.	5 St. John's Head Roy, £2 2s.
15 Bwch Consols, £3 1s.	5 Great Vor., £1 1s.	10 Tankerville, £1 1s.
25 Bronfod, £2 1s.	50 Gt. No. Laxey, 7s. 6d.	100 Taquaril, 6s. 6d. prem.
30 Caegwyn, £2 1s.	75 Gen. Brazil., £s. 6d.	15 Tan-yr-Alt., £2 1s.
50 Caldebeck Fells, 26s 6d.	50 Holmshus and Kelly	20 Van Consols, £3 8s 9d.
10 Chiverton Moor, £5.	Bray, 12s. 6d.	50 W. Chiverton, £5 1s.
75 Chontales, 21s. 9d.	15 Mark Valley, £8.	50 West Maria, £2 1s.
40 Carn Camborne, 23s 6.	20 New Lovell, £2 1s.	50 W. Pant-y-Go, 17s.
25 Drake Walls, 28s.	30 Pen'Alt., £1 1s.	20 W. Tankerville, £2 1s.
15 Don Pedro, £2 1s.	50 Pestarena, 20s. 6d.	25 W. Drake Walls, 7s. 6d.
2 Devon Gt. Con., £1 1s.	10 Pacific, £2 1s.	60 Yudanamutana, 15s.
W. H. B. transacts business in every description of shares at the best market prices, and free of commission.		

Daily Price-List free on application.

Bankers: The Metropolitan Bank (Limited), Cornhill, E.C.

MR. WILLIAM WARD,
95, BISHOPSGATE STREET WITHIN, LONDON, E.C.

JOHN RISLEY, (SWORN) STOCK AND
SHAREDEALER, 48, THREADNEEDLE STREET, LONDON, E.C.
Bankers: London and Westminster, Lothbury.

MR. Y. CHRISTIAN, STOCK AND SHAREDEALER,
11, ROYAL EXCHANGE, E.C.
Bankers: Bank of England.

MR. T. A. MUNDY, STOCK AND SHAREDEALER,
38, BISHOPSGATE STREET WITHIN, E.C.
Bankers: City Bank.

MR. JOHN MOSS, STOCK AND SHAREDEALER,
ST. MICHAEL'S CHAMBERS, 42, CORNHILL, E.C.
Bankers: City Bank, Finch-lane, E.C.

MR. C. A. POWELL, BRITISH AND FOREIGN STOCK AND
SHAREDEALER, No. 1, PINNER'S COURT, OLD BROAD STREET,
LONDON, E.C.
Bankers: City Bank, Finch-lane.

MESSRS. A. STUART AND CO., 93, BISHOPSGATE
STREET WITHIN, LONDON, E.C.

MR. THOMAS ROSEWARNE, SHAREDEALER,
81, OLD BROAD STREET, LONDON, E.C.

T. R. has business in all the leading mines in Wales, Devon, and Cornwall, and is a seller of many of the Welsh shares for time on much below the market prices. Call at my office from Ten to Four o'clock.

BEDFORD CONSOLS.—These shares are now only 24s. to 26s., and should be bought without delay; they were £8 10s. per share a short time since, and will soon be £5 10s. when they come to return the (see reports).

WANTED TO BUY:—
50 West Drake Walls.
50 East Caradon.
50 Mark Valley.
300 Princess of Wales.
300 West Maria.
15 Wheal Seton.
150 Gt. New Lovell.
150 Haweis.

Money advanced to any extent on good mining shares.
Bankers: Bank of England.

WALTER TREGELLAS, 122, BISHOPSGATE STREET
WITHIN, LONDON, E.C., DEALS in all descriptions of ENGLISH
and FOREIGN SECURITIES, either for immediate cash or the fortnightly
settlement.

Recommend the purchase of shares in the VAN MINE, undoubtedly the richest
lead mine, and the safest investment known.

W. T. has business in Carn Brea shares, and pays particular attention to the
Brazilian and Californian Gold Mine shares. From his long residence in the
Brazil he is able to afford full information as to the prospects of the gold mines
of that country.

MR. HENRY MANSELL, STOCK AND SHAREDEALER,
1, PINNER'S COURT, OLD BROAD STREET, LONDON, has FOR
SALE, at net prices, for cash, the FOLLOWING SHARES:—

25 So. Condurrow, £2 13s 9d.
10 Tankerville, £1 7s 4d.
25 Hammett (offer wtd.).
paid), 30s.
5 East Lovell, £3 6s 4d.
20 Cefn Consols.
30 West Kegair-Lle.
40 East Seton, 18s. 6d.
50 Wt. Tankerville, £2 1s.
100 North Treskerby, 9s. 6d.
10 Llanarmon.
10 Excelsior, 4s.
50 Prince of Wales, 16s.
100 East Carn Brea, 5s.
25 Terras.
50 Virtuous Lady (offer
wanted).
30 East Caradon, £4 13s 9d.
50 Great Vor., £1 17s 6d.
50 W. Maria, £2 6s.
50 Rossall Hill, 31s. 9d.
20 Sweetland Crk., 5s. 9d.
50 Gornamena, 3s. 9d.
20 Great Rock, £3 1s.
50 Great Western, 3s.
50 So. Vicente, 2s. 6d.
50 South Darren, 3s. 6d.
50 Tankerville, £1 17s 6d.
50 Hammett.
100 Harwood Con., 4s.
50 Mark Valley, £7 2s.
50 North Pool, 24s. 9d.
50 Wheal Seton, 27s.

Mr. HENRY MANSELL recommends the following shares as safe investments at
present prices:—Great Vor., West Jewell, Terras, Van Consols, West Egafur-Lle,
and Cefn Consols. All particulars on application.

Bankers: London Joint-Stock Bank. References exchanged.

MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S,
BISHOPSGATE STREET, LONDON, E.C. (Established 16 years), has
FOR SALE the FOLLOWING SHARES, at net prices:—

20 Aberdauant, 21 7s 6d.
10 East Basset, £2 1s.
10 Asbestos, £6 8s.
50 Eclipse, 1s. 9d. prem.
50 Anglo-Argent., 26s. 6d.
50 Anglo-Brazilian, £2 1s.
20 Bwch Consols, £2 1s.
25 Bronfod, £4 4s.
20 Bwadrain Con., 28s. 6d.
20 Caldebeck Fells, 25s.
20 Carn Camborne, 22s. 3.
10 Chiv. Moor, £4 16s 3d.
2 Cook's Kitchen, £2 1s.
20 Great Vor., £1 17s 6d.
20 Gt. Wh. Vor., £1 10s 6d.
50 Mark Valley, £7 2s.
20 Chontales, 20s.
20 Cefn Consols.
50 Cardigan Bay, £8.
20 Don Pedro, £2 7s. 6d.
50 Drake Walls, 27s.
20 Eberhardt, £3 1s.
50 North Pool, 24s. 9d.
And is a BUYER of 3 Wheal Jane at 4s.; 5 Mark Valley at £7 14s.; 3 East
Lew., £58 1/2 ex div.; and 10 Cefn Consols.

MR. GEORGE BUDGE, STOCK AND SHAREDEALER,
No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established
11 years), is a SELLER of:—

40 Plymstons, 35 Penrhyn, 25 Bwch Consols, 2 Minera, 25 Aberdauant, 85
West Pant-y-Go, 10 Cardigan Bay, 50 West Tankerville, 60 Caldebeck Fells, 30
Pen'Alt., 15 South Condurrow, 10 Wheal Uny, 35 Wheal Agar, 80 Redmoor, 24
New Pembroke, 3 West Chiverton, 25 Drake Walls, 50 Prince of Wales, 100
Wheal Ida, 15 Polbreen, 50 East Chiverton, 30 Wheal Creb, 50 Okel Tor, 25
Sweetland Creek, 30 Great Retallack, 45 North Treskerby, 20 Wheal Grenville,
50 West Tremayne, 100 New Crow Hill, 120 Anglo-Brazilian, 100 General
Brazilian.

Mr. BUDGE advises investors to secure an interest in Bwadrain Consols. He
begs to state that he does not know another mine making equal returns, and
laying open such reserves, or so favourably situated, the shares of which are
selling at anything like the price. Sampling for June, 80 tons of lead ore.

TANKERVILLE, WEST TANKERVILLE,
AND OTHER WELSH LEAD MINES.
EAST WHEAL LOVELL, AND OTHER CORNISH MINES.

IMPORTANT TO SHAREHOLDERS AND OTHERS.

PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST
—SYNOPSIS OF CORNISH AND DEVON MINES," &c., of Friday, July 8,
No. 500, price 6d., each copy, forwarded on application, contains information on
the following mines:—

Tankerville. East Wheal Lovell. North Wheal Crofty.
Great Wheal Vor. West Tankerville. East Wheal Seton.
South Great Work. West Great Rock.

With important particulars of the Tin Trade, &c., &c.

MR. PETER WATSON, STOCK AND SHAREDEALER,
78, OLD BROAD STREET, LONDON, E.C.
Bankers: The Alliance Bank, and Union Bank of London.

MR. EDWARD COOKE,
STOCK AND MINING SHAREDEALER, 78, OLD BROAD STREET
LONDON, E.C.
Bankers: Alliance Bank.

MR. JAMES STOCKER, STOCK AND SHAREDEALER,
31, THREADNEEDLE STREET (and Mining Exchange),
LONDON, E.C.
Bankers: London and Westminster, Lothbury.

MR. W. H. CUELL,
No. 42, CORNHILL, LONDON, E.C.
Daily price-list on application.

Established upwards of Twenty Years in Cornwall and London.

MR. J. R. PIKE, STOCK AND SHAREDEALER,
3, CROWN CHAMBERS, THREADNEEDLE STREET.

MR. H. WADDINGTON, 48, THREADNEEDLE STREET,
LONDON.

MR. WILLIAM SEWARD, STOCK AND MINING SHARE
BROKER, 19, THROGMORTON STREET, LONDON, E.C.
Every description of shares BOUGHT and SOLD at the best market prices

Twenty-six Years' Experience.

MR. F. W. MANSELL, STOCK AND SHAREDEALER,
1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.
Mr. MANSELL having been connected with the Mining Market for the above
period, and constantly visiting the mines of Cornwall and Wales, is at all times
in a position to give reliable advice in the purchase and sale of shares.

Daily List of closing prices in British and Foreign mines published every even-
ing, and forwarded to correspondents (free).
References exchanged.

Bankers: London Joint-Stock Bank.

ENDEAN AND CO., STOCK AND SHAREDEALERS,
BRITISH AND FOREIGN STOCK, SHARE, and MINING OFFICES,
88, GRACECHURCH STREET, LONDON, E.C.
Telegraphs, Railways, Insurance, Banks, Canals, Hotels, Mines (home and
abroad), Steam-ships, &c., together with every other description of Stocks,
Bought or Sold for cash or fortnightly settlement.

Our long experience has taught us to deal with caution. We act accordingly.
Investors can make money, and for safety they should do their business only
through us.

We advise capitalists and investors to make immediate application for shares
in the Terras Tin Company (Limited) and the Aberdauant Lead Mining Com-
pany (Limited). The Terras, in Cornwall, will rise to as many pounds as they
are now selling for shillings. The Aberdauant and the Gelfron Mining Com-
panies (Limited) are on the celebrated Van lode in the same district. Similar
successful results are anticipated, and it is believed that these two mines will
prove to be the next great prizes in Montgomeryshire.

Letters and telegrams receive prompt attention.

ENDEAN and Co., 88, Gracechurch-street, London, E.C.

MR. J. B. HAWKES, STOCK AND SHAREDEALER,
2, CROWN COURT, THREADNEEDLE STREET, E.C., has FOR SALE
the following shares:—

50 W. Pant-y-Go, 6s. 9d.
50 Wheal Creb, 1s. 6d.
3 Spearie Moor, £19 1/2.
25 West Caradon, 20s.
50 W. Stiperstones, 17s 6d.
2 So. Frances, £23 1/2.

1 W. Chiverton, £5 1/2.
40 West Maria, 47s.
25 Wheal Agar, 5s. 3d.
10 Wheal Uny, 5s. 9d.
100 West Prince of Wales,
1s. 9d.
50 Port Phillip, 1s. 6d.
50 Rossa Grande, 16s 6d.

50 Wheal Seton, £2 1/2.

SILK AND CO., STOCK AND SHARE BROKERS,
CHIEF OFFICES: 32, REGENT STREET, W.
CITY OFFICES: 36, MARK LANE, E.C.

We are prepared to negotiate the Purchase or Sale of Stocks and Shares in
Consols, Foreign Bonds, Railways, Banks, Insurance, Gas, and other Companies.

BUSINESS of every description in Mining Shares at net prices for cash or
account.

CARDIGAN BAY CONSOLS.—We recommend the immediate purchase of these
shares.

SOUTH CARDIGAN.—The lode in the shaft now being sunk is greatly im-
proved.

FRANK LIMMER, Secretary.

NOTICE OF REMOVAL.

MR. J. H. COCK begs to inform his FRIENDS and the PUBLIC
that he has REMOVED from 74, Old Broad-street, to

2, CROWN COURT, THREADNEEDLE STREET (Ground Floor),

BUSINESS transacted in every description of stocks and shares, as usual, at
close market prices.

MESSRS. W. DUNN AND CO., STOCK AND SHARE-
DEALERS, 3 AND 4, GREAT WINCHESTER STREET BUILDINGS,
LONDON, E.C.
Bankers and Reference: National Provincial Bank of England.

FOR SALE, at prices affixed:—

20 Aberdauant, £1 8s.
10 East Basset, £2 1s.
10 Asbestos, £6 8s.
50 Eclipse, 1s. 9d. prem.
50 Anglo-Argent., 26s. 6d.
50 Anglo-Brazilian, £2 1s.
20 Bwch Consols, £2 1s.
25 Bronfod, £4 4s.
20 Bwadrain Con., 28s. 6d.
20 Caldebeck Fells, 25s.
20 Carn Camborne, 22s. 3.
10 Chiv. Moor, £4 16s 3d.
2 Cook's Kitchen, £2 1s.
20 Great Vor., £1 17s 6d.
20 Gt. Wh. Vor., £1 10s 6d.
50 Mark Valley, £7 2s.
20 Great Rock, £3 1s.
20 Great Western, 3s.
50 So. Vicente, 2s. 6d.
50 South Darren, 3s. 6d.
50 Tankerville, £1 17s 6d.
50 Hammett.
100 Harwood Con., 4s.
50 Wheal Seton, £2 1/2.
50 Wheal Uny, £7 2s.
50 Wheal Agar, £2 12s 6d.
20 So. Condurrow, £2 1/2.
50 Wheal Agar, £2 12s 6d.
20 Wheal Seton, £2 1/2.

100 Nantes Con., 1s. 6d.

50 Pen'Alt., £1 12s 6d.

50 Wheal Seton, £2 1/2.

50 Wheal Agar, £2 12s 6

THE HOWARD SAFETY BOILER.

Made entirely of WROUGHT-IRON TUBES, and other improvements, adapting it for MARINE, STATIONARY, and PORTABLE ENGINES.

THESE BOILERS ARE NOW WORKING SUCCESSFULLY IN ALL PARTS OF THE WORLD.

One Firm in the North of England, who had a 50-horse power Boiler in 1868, has since purchased over twenty others.

Patentees and Manufacturers: J. and F. HOWARD, Britannia Iron Works, Bedford.

LONDON OFFICE: 4, CHEAPSIDE (three doors from St. Paul's).

TITANIC STEEL AND IRON COMPANY, LIMITED, FOREST STEEL WORKS, COLEFORD, GLOUCESTERSHIRE, SOLE MANUFACTURERS OF

MUSHET'S TITANIC BORER STEEL.

R. MUSHET'S Special Steel for Lathe and Planing Tools (a new Steel which REQUIRES NO HARDENING after being forged); Mushet's Titanic Cast Steel for Taps and Dies, Lathe and Planing Tools, Drills, Punches, Chisels, Shear Blades, Hammers, &c., &c.

Double Shear Steel; Spring Steel; Blister Steel; Files.

MINERS' HAMMERS AND MALLETS,

OF ALL DESCRIPTIONS.

LONDON: Mr. HENRY MUSHET, LOMBARD EXCHANGE, E.C. GLASGOW: Messrs. JOHN DOWNE and CO., 1, ROYAL BANK PLACE. NEW YORK: Messrs. CHARLES CONGREVE AND SON, 104 and 106, JOHN STREET.

OMMANNEY AND TATHAM,

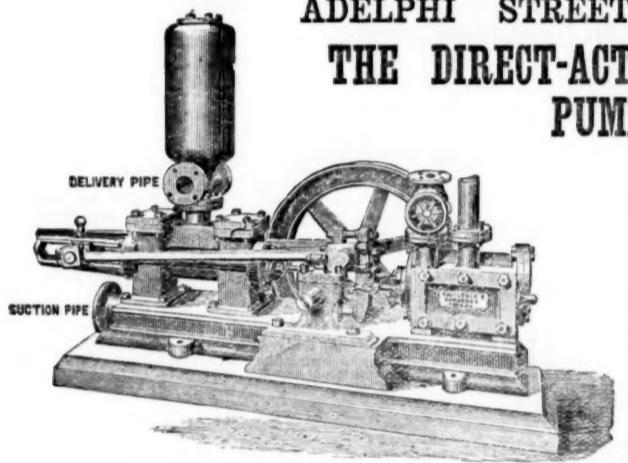
(LATE ROUTLEDGE AND OMMANNEY),

ENGINEERS,

ADELPHI STREET, Salford, MANCHESTER

THE MAKERS OF

THE DIRECT-ACTING DOUBLE HORIZONTAL PUMPING ENGINE.



THESE PUMPING-ENGINES are especially adapted for FORCING WATER OUT OF MINES, being simple in construction and reliable. They have now been at work many years in collieries, &c., and given every satisfaction.

PUMPS AND WINDING ENGINES

Especially designed for colliery purposes; also, AIR-COMPRESSING ENGINES, as used in connection with COAL-CUTTING MACHINES, &c.

Further information and prices forwarded on application.

O. and T. are also MAKERS of other classes of PUMPS and WINDING ENGINES.

HENRY VORLEY, IMPORTER AND REFINER OF OILS, TALLOW, GREASE, AND TAR. WHOLESALE DEALER IN

Cotton Waste, Lamu Cottons, Steam Cement, Colours, Paints, and General Colliery and Engineers' Stores.

MAKER OF "THE 'REGISTERED' DOUBLE-REFINED MACHINE OIL,"

For Engines, Lathes, Planing Machines, &c.

AND THE IMPROVED BROWN CORVE OIL FOR COLLIERIES

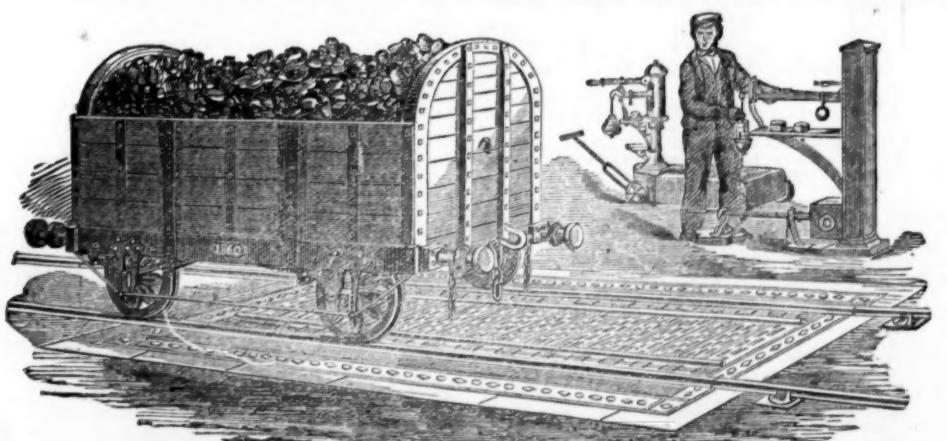
BRAMALL LANE, SHEFFIELD.

HODGSON AND STEAD, MANUFACTURERS OF WEIGHBRIDGES, for Roads and Railways,

Of any power and dimensions, and to the standards of all nations;

ALSO PATENTEE AND MANUFACTURERS OF

SELF-INDICATING WEIGHING MACHINES.



Works: Irwell Street, Salford, Manchester.

Show Rooms: 11 New Bailey Street, Salford Manchester.

MINING, METALS, AND MINERALS—PATENT MATTERS.

BY MICHAEL HENRY.

Patent Agent and Adviser, Memb. Soc. Arts, Assoc. Soc. Eng.

Mr. W. R. LAKE, of Southampton-buildings, has obtained a patent for the preparation of ammoniated sulphuric acid for the manufacture of manure, as a communication to him from abroad by Mr. Chas. W. Shepard, of Charlestown (U.S.) This invention relates to an improved process of treating the ammonical distillate of the ammoniacal water of gas works with sulphuric acid for admixture with phosphatic material in the manufacture of manure. Mix quicklime, or other equivalent material, with the ammonical water of gas works, and apply heat thereto, for the purpose of liberating the ammonia, which is carried over as a gas, and absorbed by sulphuric acid, not however for the immediate or ultimate production of a dry salt of ammonia, as he is aware that this is well-known method of preparing the sulphuric, or other salts of ammonia, but to limit the absorption to such degree only that a portion of the sulphuric acid shall remain uncombined, leaving the product in a fluid state convenient for shipment. He then pours the liquid upon the phosphatic material. The uncombining sulphuric acid acting upon the phosphatic material will render it somewhat soluble, and the entire mass will become ammoniated by that portion of ammonia which has been combined with the acid. The same process may be applied to the combination of ammonia produced by liberation from bone-black of other ammoniacal material by familiar processes; the gas thus produced is to be treated in the same manner. This process is distinguished from all others of which he has knowledge by this—that he stops the process before a solid salt has been formed, and while a portion of the acid remains uncombined, so that he may economically produce upon the phosphatic material the effect due both to the presence of the acid and also of the ammonia.

Mr. A. C. KIRK, of Glasgow, has obtained a patent for an invention relating to retorts. The invention is applicable to all retorts from which the residues are drawn or removed through a water-lake that prevents the escape of vapour, and it consists, according to one modification, in arranging one or more bars to reciprocate slowly between the discharge mouth of the retort and the bottom of the pan or trough containing the water, by which bar or bars the residues from the retort are pushed over the edge of the trough at each side alternately, and fall thence into wagons, or other receptacles. The improvement (whilst applicable to various kinds of retorts) is particularly designed for vertical retorts, and in constructing such retorts it is preferred to make the body in two lengths, and to fix in at the joint a shell extending downwards therefrom, so as to form a jacket space, into the top of which the steam, or other gas or vapour, which is usually introduced into such retorts, is admitted, and from the bottom of which it issues into or among the shale or other substance being distilled. The apparatus may be modified in various ways; thus, for example, it may be arranged to deliver the residue at one side only of the retort or retorts. Also one or more bars may be arranged on a pair of endless chains suitably guided, and which may be made to reciprocate, or to move continuously in one direction, the chain in the latter case returning beneath the trough. One advantage of the retort is that the steam vapour or gas led into the jacket space becomes superheated therein before it acts on the substance in the retorts.

Mr. EDMUND HAVILAND BURKE, of the Temple, has obtained a patent for metallic barrels. This invention has specially for its object to construct metallic barrels suitable for containing beer, wine, or explosive or combustible liquids. For this purpose he forms the body of the barrel from a plate of iron, bent into cylindrical shape, and welded up to form a tube. Each head of the cask he makes of a disc of iron, with a cylindrical flange passing around it, which just fits into the body of the barrel, and he welds this flange all round to the edges of the cylinder. By this he obtains a metallic barrel, with welded joints throughout; the requisite opening or bung-hole is formed in one of the heads previous to its being welded up in the cask.

REFINING AND DESILVERING LEAD.—Mr. C. D. ABEL has specified a patent for a new process for refining and desilvering lead, and apparatus employed for that purpose, as communicated to him by Messrs. Gustave Luce, Son, and Rozan, Rue Saint, Marseilles. The invention consists in refining and desilvering lead, by means of steam. For this purpose the crude argentiferous lead is melted down in a vessel heated by a fire, and provided at its lower end with a spout, closed with a slide, through which, when the lead is melted, it is caused to flow down into a lower vessel or vat, heated only at times directly by a special fire, and at other times by the waste heat from the fire of the upper vessel. When the lower vessel is full steam is introduced through a central pipe, leading down to near the bottom of the vessel, where it is provided with a cock turned by a rod from above, and with a disc, for the purpose of dividing the steam as it enters. The steam, in passing up through the molten lead, effectually oxidises all impurities, which then rise in the form of scum to the top of the metal, whence they are removed. The introduction of the steam at the same time produces violent ebullition of the lead, causing it to crystallise, and when this crystallisation has taken place to a sufficient extent the introduction of steam is stopped by closing the cock on the steam-pipe, and the remaining liquid portion of the lead, in which the greater proportion of the silver will be found concentrated, is run off through one or more spouts, into troughs turning on pivots, for conducting the lead into a series of ingot moulds. During this time a fresh charge of lead, containing a percentage of silver approximating to that of the crystals in the lower vessel, has been melted down in the upper vessel, and is run into the lower vessel as soon as all the liquid portion has been removed therefrom. Steam is then again introduced, effecting a further purification and separation of silver, and this process is continued until, by the repeated crystallisation, one part of the lead is rendered comparatively free from silver, to be used as merchant lead, while the lead run off is sufficiently rich in silver for the cupelling process. The duration of each operation for 12 to 13 tons of argentiferous lead is about from two and a half to three hours.

BREAKING DOWN COAL.—Mr. J. G. JONES, Newport, Monmouthshire, adapts to the end of such hydraulic cylinder a screw force-pump, the cylinder of which is of less diameter than the hydraulic cylinder, and he either forms the pump cylinder of greater length than the stroke required to be given to the wedge, or he so constructs the screw force-pump that two or more strokes or forward movements of the screw may be given to complete the movement of the wedge. To effect this the inventor forms the passage through which water is forced from the cylinder of the screw force-pump with two branch passages, one leading to the hydraulic cylinder of the breaking down apparatus, and the other to a reservoir of water, in preference an annular chamber formed between the exterior of the cylinder of the screw force-pump and a jacket or casing, by which it is surrounded.

MINING LAMPS.—Messrs. F. CLARBOUR and W. SEALE, Salford, apply to the wick tube of a lamp a sliding tube, which is capable of being moved up and down over the wick tube so as to regulate or extinguish the light. Attached to the said sliding tube is a circular flange. They attach to the framework or body of the lamp one or more hinges, levers, or springs in such a manner that on closing the lamp the flange of the sliding tube will come in contact with the said hinges, levers, or springs, and will elevate them in passing. They also attach to the body of the lamp one or more stops or metal points, which regulate the traverse of the sliding tube by their action upon the flange thereof.

DRESSING STONE.—By the invention of Messrs. H. H. GRIERSON and J. M. RIGBY, Manchester, the enter block is formed upon or attached to the shaft, to which a rocking motion is imparted. Two rows of pickers mounted in the block, and two rows of dressers are also mounted therein. The stone to be dressed travels in the determined direction. By the successive vibrations of the shaft the picks or chisel are caused to remove portions of the stone and bring it to a comparative level, but before the stone has passed the tools (for a space of a few inches) the block is turned with its shaft, so as to remove the picks from their cutting positions, and the stone allowed to pass onward until its end is beyond the second row of picks. The block is now turned in the direction of the arrow, and the vibrations of the shaft will cause the picks to operate upon the stone, commencing at the opposite end to that which was previously cut by the tools, whereby a fracture of the said end is avoided, and without a removal or readjustment of tools.

HOLLOWAY'S PILLS.—FRIENDS IN COUNCIL.—Under no circumstances are judicious friends so valuable as in sickness, their sympathy is soothing, and their prudent council often suggests best means of relieving and remedying suffering. Holloway's pills and ointment may be confidently recommended in external and internal diseases. The pills purify the blood, expel impurities, regulate the secretions, and restore perfect action to every organ. The ointment, applied to the skin, cures all wounds, mitigates pain, and, penetrating internally, harmoniously co-operates with the pills. Absolute reliance may be placed on Holloway's medicaments, to which the wise nurse will never vainly resort, even when the patient seems hopelessly lost.

Meetings of Mining Companies.

THE WEST RHOSWYDDOL CONSOLIDATED LEAD MINING COMPANY (LIMITED).

The first general meeting of shareholders (required under the Act of Parliament) was held on June 30, at the offices, South Castle-street, Liverpool.

The report of the directors, which was read by the Chairman, being considered very satisfactory, was adopted unanimously. It is the attention of the shareholders is directed to the recent formation of the company, and, consequently, to the short time which has elapsed to allow of any decisive progress in working the mines being reported; nevertheless, it is clearly shown, from the able report of the company's agent, that active operations have been commenced, and the amount of work done speaks for the vigour with which they have been continued. Capt. Williams, in his report of June 17, says—

Since the formation of the company we have cut about 15 yards of open cut, varying in depth from 2 ft. to 9 ft., and about 7 ft. wide, preparatory to driving the cross-cut level to intersect the lode. We have also driven about 32 yards of the level. The first 16 yards required timber to support the ground, which has been done in a substantial manner. The ground driven through has been favourable for progress until the last week or two, when it became harder, consequently our progress is rather slower; however, we are pressing on the work with all possible speed. The appearance of the rocks is highly mineralised, and a more congenital lead-bearing ground I never witnessed before in any mine—in fact, I never knew a place where so many lodes are coming together, and forming a junction, as in your sett. The prosperity of such mines as Cwm-y-wis, Glogfawr, Levelaefur, Frongog, Goginan, East Darren, Bronfod, Van, Aberdovey, and many other rich mines with which I am acquainted, has resulted from similar dispositions of the lodes, but in none of them are so many junctions as at the West Rhoswyddol Mines, and I am confident you will be proud of your property before many months hence. We have also employed two men in order to make a trial on the back of a lode which has yielded 50,000t. worth of ore at the adjoining mines, and I am glad to inform you that we found it by following the bearing of the latter—that is one proof of its being the same; secondly, it has the very same two well-defined walls; thirdly, it is the same in its nature and quality, and the deeper we go the better it looks; indeed, a more kindly-looking lode I never saw in any place—about 3 ft. wide, composed of sugar spar, carbonate of lime, and hard slate. No doubt you will have a fine run of ore ground all the way from here to the junctions.

The CHAIRMAN then stated that, in order to satisfy himself personally, as well as to be enabled to speak confidently at the meeting of the prospects of the undertaking, he had, accompanied by one of the largest shareholders and the company's brokers, visited the mines on the 22d ultimo, carefully examining, as far as practicable, the various important points of the property. They inspected the cross-cut which is being driven for the purpose of intersecting the numerous lodes in the mines, and passing through highly-mineralised clay-slate, and presenting features of the most encouraging nature, which afford every indication of abundant and profitable returns as the various lodes are reached and opened. The trial shaft being sunk in the eastern portion of the sett, immediately adjoining the Great Rhoswyddol Mines, was considered to afford fair and satisfactory promise of resulting in a valuable discovery of ore.

The confidence of the directors with regard to the West Rhoswyddol Mines having been confirmed by the opinion expressed by the Chairman after his complete and exhaustive survey of the property, they desire to record their approval of the energetic way in which the development of this valuable piece of virgin ground has been commenced, and to state their conviction that ere long the capital now being expended by the company will be returned with great and permanent profits.

As a further proof of the satisfaction the Chairman experienced from his visit to the mines, he stated that he had determined to increase his interest in the undertaking, which example would be followed by another gentleman also holding a large stake in the company, the opportunity to do so being afforded them by the company's brokers, Messrs. Lisscombe and Co., who, on the closing of the share list, had taken the residue of shares into their own hands; but, being desirous that the original shareholders should participate to the utmost in the success of the mines, have decided to sell to a limited extent without premium to such as may be desirous of increasing their holding.

With reference to the above statement made by the Chairman, Messrs. Lisscombe and Co. beg to add their recommendation that applications for further allotment of shares should be made without delay, as, in the event of one or more of the veins being cut—and it should be borne in mind that the workings are not in close proximity to their supposed locality—they will rapidly rise to a high premium, and it will be difficult, if at all possible, to obtain them. The number of shares for sale being limited, applications (which should be addressed to Messrs. Lisscombe and Co., South Castle-street, Liverpool), will meet with attention in order of receipt.

EAST WHEAL LOVELL MINING COMPANY.

The quarterly general meeting of shareholders was held on Monday at the Star Hotel, Helston.—Mr. H. ROGERS (purser) in the chair.

A statement of accounts for the quarter was submitted, which showed a credit balance of 4271L 14s. 5d. A dividend of 3812L 27s. per share was declared. The following report was read:—

Fryer's Town, Victoria, Australia, April 23.—I beg to inform you of my arrival at this colony on March 30, one day after the departure of the last mail for England. I now wish and will endeavour to give to you a clear insight into affairs here, for there is no doubt the state of the company is a clear, and requires your immediate urgent attention and decisive action. Of course, I am aware that Mr. Kitto has, previous to my return, written you fully and pressingly on this subject, but as I cannot tell what action you have taken in the matter, I consider it my duty to give you my impression of our position, and to endorse Mr. Kitto's late representations, for I quite coincide with him as to the value of the properties, and folly of abandoning the mines without sufficient development. To accomplish this it is absolutely necessary to increase the capital of the company by 10,000t. at least. There is no doubt the original working capital was too small for the work on hand; it might have sufficed had the surface quartz, and that from the first levels, been of a paying quality; this, no doubt, Mr. Kitto calculated upon in his estimate. Another help to the failure of capital has been the very hard nature of the sinking at the Duke, and the very soft (quicksand) sinking at the Central Mine, the latter proving the most expensive of the two; I may here state, for the satisfaction of the shareholders in general, I found a large amount of work had been done, and everything in first rate working order, although little had been done at the Duke in the way of development on account of the want of funds. The only underground work being in Daukes' shaft, in stopping from the 200 ft. level; it was this level which upon a trial crushing gave about 8 dwt. to the ton, but as the stopes rose the quartz decreased in value; this fact helps to prove that which is generally admitted in the neighbourhood, that we have not got deep enough, and which is further illustrated by the fact that neighbours, at less than 100 feet deep, are getting large bodies of payable quartz, the Messrs. Rowe's last week obtaining 200 ozs. of gold from 200 tons of stone. Their quartz is of the same nature as ours, and has increased in value with depth. We have not the means to pay for sinking, and will be compelled to leave off unless we receive remittances.

* * * We must go on working with such prospects as we have in view, and we have no means of raising more money. The sum total spent on our mines is altogether below what is usual and necessary in work of the same magnitude in this colony. For the two mines, situated about 12 miles apart, we have only received from England 19,500t., making, with the debt of 4,000t., a total of 23,500t. It is my firm impression that we have a good property in the Duke, and our plant on the surface is admirable, very little more being required to make it all we want—another battery or so as we get the mine more fully opened out, and the repairs done on new revolving heads in the place of the battery in a short time since. It would be a pity when so much has been done towards success that the property should be abandoned for want of a little more expenditure, and I trust the shareholders will see their interests in a proper light, only there must be no delay. We cannot retain the mines unless we keep on working them. I see by your Articles that you have power to increase the capital, and can call the necessary meeting at ten days notice, therefore by the mail of July 15 you can easily be in a position to send us 10,000t. This would reach us by Sept. 1; until then we must manage to do the best we can in the interest of the shareholders, but we cannot go on developing the mines without further means from home, unless the Central should turn out prolific with gold. That this is likely to be the case is the general opinion; the prospects on the bottom of the shaft in shelving ground—upwards of 2½ ozs. of gold being extraordinarily good. But, however good the Central Mine may turn out, I have always looked upon the Duke as the most certain and permanent mine. It will not, however, do to depend upon the Central turning out well for developing the Duke, as we have no resources for obtaining the gold from the former mine unless we succeed in doing so before next pay-day. At this distance from head quarters possibly difficulties should be foreseen, and every means taken to enable us to meet them; failing this, your manager here is powerless. Mr. Kitto and the mine captains have furnished you with a statement of the work done since last mail. I have simply endeavoured to depict our pecuniary collapse, and state my strong belief in the impolicy of letting the mines slip from your possession for the sake of 10,000t., after so much has been done towards success.

* * * It is my belief that at our next level we shall get good quartz; this view is founded upon the improvement in the stone at the 200 ft. level, and the further improvement at our neighbours' mines in still deeper ground. I have witnessed their crushing and clearing up, the quantity of amalgam being at least eight times as large as ours for the same quantity of stone. As I stated before, we have now all necessary machinery and appliances for reducing the ore. A few thousands more will most probably turn a comparative failure into a real success. At the Fryer's Gold Mining Company, not far from the Duke, they are sinking 300 ft. for their first cross-cut, but this is the first instance in this locality of so doing, and it is in consequence of our experience that it is so. The shareholders must bear in mind it is less than two years since these mines were taken possession of for the company. The machinery did not arrive until about nine months after that event. I have no hesitation in saying there is a good show, both as regards outlay of time and capital.—HENRY WM. LAMB.

Capt. QUENTRALL stated, in reply to a question, that there were between 4 and 5 tons of tin dressed ready for sale. It was mentioned that since the commencement of the year there have been 129 transfers of 7582 shares. In other words, on the average each share has been bought and sold four times over since then. Some shares have, of course, been dealt in much oftener than this, for there have been many continuous shareholders.

The CHAIRMAN, in moving that the accounts be allowed and passed, stated that the meeting was held three days earlier than usual. They had enough to provide a dividend of 2½ per share, and carry forward a balance larger by 24t. than that left at the last meeting, and he thought any further sale just then unnecessary. Referring to a communication from "A Correspondent," which appeared in last week's *Mining Journal*, he stated that the London brokers together only held 16 shares, whilst they had recently sold some. There were only 50 shares held in London altogether. A London broker in a letter stated that shares were very scarce, and that 15s. per share was being offered for loan to July 15. He had himself refused to lend 350 at 12 per cent. Capt. Tonkin had lent his for 17s. 6d. per share.

Upon the proposition of Mr. BROAD, jun., that personal inspection of the mine should be allowed at any time, a discussion ensued; but upon a division, the proposal was negatived.

After the business of the meeting had been disposed of, the Chairman referred to a proposal to form a company to work a tract of unexplored ground lying between Trumpet Consols, Wheal Lovell, and Trevenen Mines, from which Capt. Quentall had obtained a license from the Duchy. It was stated that six lodes run through the tract, all productive in adjoining mines. The mine would be worked on the Cost-book system, and divided into 2000 shares, of which Capt. Quentall and Lovell United. A first call of 10s. would be made.

A vote of thanks to the Chairman terminated the proceedings.

NEW PEMBROKE MINING COMPANY.

The four-monthly meeting of adventurers was held on Tuesday, The Rev. Dr. TREFFRY in the chair.

The accounts showed—Receipts from sales of copper ores and tin, 443L 3s.; balance from last meeting, 718L 14s. 6d.; sundries, 24L 11s. 6d.; together 5156L 14s. The current working cost of the four months, 2373L 5s. 6d.; merchants' bills (including about 600t. extra work and repairs to the 80 ft. engine, just completed and ready for work), 1610L 5s. 4d.; together 3884L 11s., leaving a credit balance of 1165L 3s., out of which it was resolved to declare their first dividend of 2s. 6d. per 6400th share (8s. 6d.), leaving a balance to be carried forward of 368L 3s. It was considered that a dividend was warranted by the exceptionally promising condition of the mine at the present time, and from the fact that the credit balance at the next audit will be considerably increased, with the same if not larger returns as in the past four months, and the extra cost in erecting, &c., will be considerably diminished.

The agents' report was of a very encouraging nature, evidently satisfying the adventurers present that their property is a good one, and likely, from present appearances, to be of permanence. For the last 23 fms. driving of the bottom level (the 75) they have had a lode worth from 200 to 350 per fm.; driving west, 121 per fm. In the stope over, 162 per fm.; two other stopes are worth 151, and 161 per fm. At the 68 the stope is worth 121 per fm. The stope in back of the lode is worth 1602. per fm. for tin and copper. Another stope, 181 per fm. The shaft is down 8 fms. below the 75; lode worth 40L per fm.

The report concludes thus:—"We have great pleasure in informing the share-

holders that the bottom of the mine is opening out very satisfactorily, and the general prospects for opening deeper levels never looked better than at the present time."

GUNNISLAKE (CLITTERS) MINING COMPANY.

At a meeting of adventurers, held at the purser's offices, Tavistock, on June 28 (Mr. J. C. ISAAC in the chair), the accounts showed a profit on the past four months' working of 576L, which, with balance in hand at former meeting, showed a total of 1358L in favour of the mine—every liability to the end of April having been paid up. A dividend of 1s. per share was declared, which leaves a credit balance of 866L in hand. The agents (whose reports were considered very satisfactory) see no reason at present to interfere with the reserves of ore to enable them to provide funds for a four-monthly dividend regularly. Their sampling on Friday last (computed 170 tons) is expected to realise from 900L to 1000L. Since the meeting the 23 fathom level has improved for tin, worth 50L per fathom. The future of the mine is, therefore, a matter of congratulation to the long-persevering shareholders.

AUSTRALIAN UNITED GOLD MINING COMPANY.

A special meeting of shareholders was held at the offices, Austin Friars, on Monday, for the purpose of deciding as to the increase of capital.

Major JELF SHARP in the chair.

The LONDON MANAGER read the notice convening the meeting.

The CHAIRMAN said that soon after the Deed of Association was settled, and the capital arranged, he saw that a great mistake had been made in not placing the capital at a larger amount, leaving a sufficient reserve to meet such contingencies as were likely to arise in all mining affairs, and which had arisen in their own case.

Every effort had been made to employ the capital they had had to the best possible advantage, but contingencies had arisen for which no provision had been made.

Comparing, however, the expenditure made by other companies upon single gold mines, and remembering what had been done in the case of the Australian United, in the development of two mines—the Duke of Cornwall and the Central—the comparison would be greatly in favour of the latter. He was bound to confess that Mr. Kitto had been rather too sanguine in expecting to realise important results at the present depth—it was now perfectly clear that they must go deeper—it might be they would have to sink 20, 30, or 40 feet before they reached a very valuable reef. The adjoining property was yielding quartz which gave 14 dwt. of gold per ton, and as they know that 3 dwt. would meet all their expenditure, all above that being profit, they had every reason to believe that there was a very valuable mine at their feet—in fact, Mr. Kitto makes use of the expression that "our mine is at our feet—you have only to sink a few feet deeper, because we see what is being done in mines around us." As regards the Central, all the advices were just as favourable as ever. It was, of course, impossible to say when they would touch the "alluvials," but in the meantime the works must be proceeded with in a systematic way. It had taken longer than expected, but there seemed reason to hope the time was now not far distant when something of importance would be reached—indeed, they might have some satisfactory advices by the mail due July 11. Neither Mr. Kitto nor the directors had lost any of their former confidence in the value of the mines, although financially the company was in a position to require additional capital. The directors thought of obtaining the sanction of the shareholders to raise 15,000L, although probably not more than 10,000L would be absolutely required. The ordinary shares up to the arrival of the last mail were negotiable at 10s. per share premium, therefore the directors had not the slightest doubt that if the present meeting agreed to issue the new shares, with a preferential dividend, they would command a much higher premium in the market. With the view of eliciting the opinions of shareholders, he would move that the directors be authorised to increase the capital of the company by a sum not exceeding 15,000L, by the issue of new shares of 2L 10s. each, to bear a preferential dividend not exceeding 15 per cent. per annum out of the first profits, and then the ordinary shares to receive 15 per cent. per annum, after which the two classes of shares to rank *pari passu*; the company to reserve the option to pay off the money thus raised at the end of two years, upon the payment of a 25 per cent.

Mr. MURCHISON, in reply to a question, stated that the purchase-money of the two mines was 25,000L, in shares and money. The vendors, after receiving 11,000L in cash, took 2200 shares, paying cash for them like any other shareholder. Mr. Kitto had since then purchased shares, as had also some influential people in the colony. The total expenditure upon the mines by the company was 26,19L, of which 2200L had been spent upon machinery. The liabilities amounted to 5,000L. He then read extracts from a letter received from a well-known firm in Victoria, as follows:—

"Mr. Kitto informs us that he has bottomed the Central shaft, and that the prospect is very rich. He has shown us about 3 ozs. of gold taken from the wash dirt at the bottom. We hear from other parties that there is some excitement in the neighbourhood about his success, and that the wash dirt is considered to be very rich. The report we make is only on hearsay; being so far from the mines we cannot make a personal inspection. If, however, the wash dirt continues to be as rich as that shown to us, the mine will be one of the richest in the colony." Speaking of Mr. Kitto they remark—"He is most energetic and persevering, and, as far as we can judge, honourable."

Mr. DAUKES (a director) thought Mr. Lamb's letter, received by the last mail, would afford the best information as to the present position of the mine. It was as follows:—

Fryer's Town, Victoria, Australia, April 23.—I beg to inform you of my arrival at this colony on March 30, one day after the departure of the last mail for England. I now wish and will endeavour to give to you a clear insight into affairs here, for there is no doubt the state of the company is a clear, and requires your immediate urgent attention and decisive action. Of course, I am aware that Mr. Kitto has, previous to my return, written you fully and pressingly on this subject, but as I cannot tell what action you have taken in the matter, I consider it my duty to give you my impression of our position, and to endorse Mr. Kitto's late representations, for I quite coincide with him as to the value of the properties, and folly of abandoning the mines without sufficient development. To accomplish this it is absolutely necessary to increase the capital of the company by 10,000L at least. There is no doubt the original working capital was too small for the work on hand; it might have sufficed had the surface quartz, and that from the first levels, been of a paying quality; this, no doubt, Mr. Kitto calculated upon in his estimate. Another help to the failure of capital has been the very hard nature of the sinking at the Duke, and the very soft (quicksand) sinking at the Central Mine, the latter proving the most expensive of the two; I may here state, for the satisfaction of the shareholders in general, I found a large amount of work had been done, and everything in first rate working order, although little had been done at the Duke in the way of development on account of the want of funds. The only underground work being in Daukes' shaft, in stopping from the 200 ft. level; it was this level which upon a trial crushing gave about 8 dwt. to the ton, but as the stopes rose the quartz decreased in value; this fact helps to prove that which is generally admitted in the neighbourhood, that we have not got deep enough, and which is further illustrated by the fact that neighbours, at less than 100 feet deep, are getting large bodies of payable quartz, the Messrs. Rowe's last week obtaining 200 ozs. of gold from 200 tons of stone. Their quartz is of the same nature as ours, and has increased in value with depth. We have not the means to pay for sinking, and will be compelled to leave off unless we receive remittances.

* * * We must go on working with such prospects as we have in view, and we have no means of raising more money. The sum total spent on our mines is altogether below what is usual and necessary in work of the same magnitude in this colony. For the two mines, situated about 12 miles apart, we have only received from England 19,500L, making, with the debt of 4,000L, a total of 23,500L. It is my firm impression that we have a good property in the Duke, and our plant on the surface is admirable, very little more being required to make it all we want—another battery or so as we get the mine more fully opened out, and the repairs done on new revolving heads in the place of the battery in a short time since. It would be a pity when so much has been done towards success that the property should be abandoned for want of a little more expenditure, and I trust the shareholders will see their interests in a proper light, only there must be no delay. We cannot retain the mines unless we keep on working them. I see by your Articles that you have power to increase the capital, and can call the necessary meeting at ten days notice, therefore by the mail of July 15 you can easily be in a position to send us 10,000L. This would reach us by Sept. 1; until then we must manage to do the best we can in the interest of the shareholders, but we cannot go on developing the mines without further means from home, unless the Central should turn out prolific with gold.

* * * It is my belief that at our next level we shall get good quartz; this view is founded upon the improvement in the stone at the 200 ft. level, and the further improvement at our neighbours' mines in still deeper ground. I have witnessed their crushing and clearing up, the quantity of amalgam being at least eight times as large as ours for the same quantity of stone. As I stated before, we have now all necessary machinery and appliances for reducing the ore. A few thousands more will most probably turn a comparative failure into a real success. At the Fryer's Gold Mining Company, not far from the Duke, they are sinking 300 ft. for their first cross-cut, but this is the first instance in this locality of so doing, and it is in consequence of our experience that it is so. The shareholders must bear in mind it is less than two years since these mines were taken possession of for the company. The machinery did not arrive until about nine months after that event. I have no hesitation in saying there is a good show, both as regards outlay of time and capital.—HENRY WM. LAMB.

Capt. QUENTRALL stated, in reply to a question, that there were between 4 and 5 tons of tin dressed ready for sale.

It was mentioned that since the commencement of the year there have been 129 transfers of 7582 shares. In other words, on the average each share has been bought and sold four times over since then. Some shares have, of course, been dealt in much oftener than this, for there have been many continuous shareholders.

The CHAIRMAN, in moving that the accounts be allowed and passed, stated that the meeting was held three days earlier than usual. They had enough to provide a dividend of 2½ per share, and carry forward a balance larger by 24t. than that left at the last meeting, and he thought any further sale just then unnecessary. Referring to a communication from "A Correspondent," which appeared in last week's *Mining Journal*, he stated that the London brokers together only held 16 shares, whilst they had recently sold some. There were only 50 shares held in London altogether. A London broker in a letter stated that shares were very scarce, and that 15s. per share was being offered for loan to July 15. He had himself refused to lend 350 at 12 per cent.

Upon the proposition of Mr. BROAD, jun., that personal inspection of the mine should be allowed at any time, a discussion ensued; but upon a division, the proposal was negatived.

After the business of the meeting had been disposed of, the Chairman referred to a proposal to form a company to work a tract of unexplored ground lying between Trumpet Consols, Wheal Lovell,

proofs which the directors had given of their care of the shareholders' interests. It had given him satisfaction to learn, upon enquiry, that the company's relations towards Capt. Anthony were upon a proper and economical basis.

Mr. WARD said he hoped the shareholders would co-operate with the directors in raising more money. Hall's shaft had taken more than was expected; still, the directors considered it desirable to reach the 45, and having got so near they would not like to see the work stopped. Deeble's shaft had been very productive, and he hoped it would continue to be so. The shareholders should make another effort to provide the necessary funds, and keep the property in their own hands.

The report was adopted. Resolutions authorising the directors to issue the remainder of the 18,750 of 12½ percent debentures were passed. The retiring directors and auditor were unanimously re-elected, and a vote of thanks to the Chairman and directors brought the proceedings to a close.

TAQUARIL GOLD MINING COMPANY.

The third annual meeting of shareholders was held at the London Tavern, yesterday.—Mr. HENRY HAYMEN in the chair.

Mr. BLUETT (the secretary) read the notice convening the meeting.

The directors' report, which was taken as read, was as follows:—

It is much to be regretted that, from unforeseen events, the machinery for draining the old workings, where the great shoots of gold were formerly found, was not sooner erected, notwithstanding this "the progress made" at the mine, as remarked by Capt. Treloar in April last, "is astonishing," and, coupled with the statement given by him, "that both directors and shareholders, in 1870, will be gladdened with the sight in London of no small quantity of Taquaril gold," is in the highest degree encouraging.

The CHAIRMAN said, that since the directors last had the pleasure of meeting the shareholders a considerable amount of work had been carried out at the mines, and he believed that the work had been carried out (if they were to believe the consulting engineer) in a most satisfactory manner. The directors anticipated that before this they would be in receipt of gold returns, but one cause after another had delayed the operations of the company. But that delay was simply a matter of some few weeks, or, at the outside, some few months. It would be observed that Mr. Treloar, the manager of the company, in his report, anticipated he would be in a position to put the machinery at work at a much earlier date than the consulting engineer expected; but whether the gold would be found in one month or two, the shareholders had the most tangible expression of opinion from Capt. Treloar that he expected the shareholders and directors would alike be gratified by seeing large gold returns during the coming year. From opinions expressed by other persons who had visited the property, some connected with the company as shareholders, and others who were not connected with it, he was bound to say that that he cordially endorsed the statement of Capt. Treloar; and he believed that before the end of the present year, if no unforeseen circumstances should arise (which it was impossible for the directors to foresee or counteract), they would be receiving good returns of gold from the mines, and be working at a very considerable profits. The reports of Capt. Thomas Treloar, of Mr. Treloar, the manager, and the mechanics' reports, went so fully into the affairs of the company, that he need not detain the shareholders at any great length. He would, therefore, simply move the adoption of the report and accounts, but should be happy to answer any question which any shareholder might wish to put.

Mr. S. J. WILDE seconded the resolution.

Mr. COURTYNE said he had only recently become a shareholder, and, therefore, had not attended any of the previous meetings. When the report was sent to him it struck him that there were one or two points which required a little explanation. He had no doubt that those explanations had been given previously; if so, he must ask the Chairman to excuse him. There was an item on the credit side of the account, "by preliminary expenses, 975L 9s. 4d.," and, on the same side of the balance-sheet, he found another item, "by preliminary expenses 4638L 11s. 10d." He presumed the 975L 9s. 4d. was included in the 4638L 11s. 10d.?

The CHAIRMAN: Yes.

Mr. COURTYNE said he should like to know to whom, and for what services, the sum of 4638L 11s. 10d. had been paid? He should also like to know whether any more was to be paid on account of preliminary expenses? He would also draw attention to the general expenses, which appeared to be 243L 16s. 4d. He did not wish to set up his opinion against that of the Chairman, who had had so much experience in mining matters, but it certainly did strike him that the amount for general expenses was very large. He should be glad to hear some little explanation on those two points.

The CHAIRMAN said that Mr. Courtney was perfectly right in asking the questions, and he should be happy to give full explanations upon the points raised. But it must be borne in mind that the present directors were not at all responsible for a considerable amount of this expenditure, for the present board only took office about 12 months ago. Therefore, without fully going into the books he could not give an account of all the expenditure of the 4638L, but he had no doubt that it had been properly spent, for all the accounts had been properly vouchered by the auditor. With respect to preliminary expenses, he might remark that such expenses might be treated in the way they had been, or carried forward—a portion to general expenses, and a portion against the mine; but in this case the directors had preferred to charge the whole as preliminary expenses. For his own part, he did not agree that those preliminary expenses were large. With regard to the general expenses (243L 16s. 4d.), of that sum 863L consisted of items which probably would not occur again, such as loss on exchange, balance of expenses of agency, &c., at Brazil. That left a balance of 1540L odd (including some items which possibly might not occur again), and looking at the amount of labour and work which was being carried on to bring the company into a paying condition, he did not think it could be considered a large sum.

A SHAREHOLDER enquired what was the amount of money in hand to carry on the work at the time the report was issued?—The CHAIRMAN said that at the date of the report the sum in hand was 1698L 5s. 1d., but that amount had since been absorbed in carrying on the company. At the board meeting, about an hour before, the directors had made a call of 1s. per share; this would leave 7s. per share uncalled, on 100,000 shares; but he did not anticipate any further call would be necessary.—Mr. COURTYNE said the replies of the Chairman were perfectly satisfactory.

The resolution was then put to the meeting, and carried unanimously. The retiring directors, Lieutenant-General D. Downing and Mr. S. Wilde, were then re-elected, and Mr. W. Weston was re-appointed auditor. The meeting then terminated.

CHONTALES GOLD AND SILVER MINING COMPANY.

An extraordinary general meeting of shareholders was held at the London Tavern, on Thursday,

The Right Hon. the Earl NELSON in the chair.

The report of the directors regretted that, on account of the restricted development of the mines at present, the returns have been insufficient to enable the directors to meet the accruing interest on the debenture debt, neither will the small margin of capital now in hand at the mines and in London permit its application to the discharge of the coupons due in July, without the entire deprivation of the capital requisite to keep the mines at work. The disorganisation caused by the revolution, the loss of mine and damage to the works that it involved, so impaired the means at Mr. Bell's disposal, that the operations have been necessarily limited in the Trinidad and San Antonio Mines, in both of which discoveries have been made, still though as yet they have been short and bungy, nevertheless, profits have been made the last two months. The directors have every reason to believe that, if this improvement in the Trinidad level, driving east, had maintained its productive value of 15 to 20 dwt. per ton, the returns would now enable them to meet the interest of a debenture interest. The directors, therefore, believe that if they could satisfy the debenture interest, and continue to prosecute the mines, profitable success would yet attend the enterprise. Under these circumstances it is hoped that the shareholders will at once take up the unallotted 600L debentures to pay the accrued interest, and afford a more substantial working capital. The total amount received for gold remitted from the mines since the commencement of the company's operations has been 39,305L 11s. 3d., of which 16,900L 2s. 10d. has been received since March, 1869. This statement may be considered at least encouraging for the continued prosecution of the mines, more particularly as the great reduction of cost will render the future returns more advantageous.

The CHAIRMAN said, as the present meeting had been convened to decide a most important question, the directors would be glad to elicit the opinion of the shareholders as to the most politic course to be adopted. In the first place, he was merely echoing the feeling of the board when he stated that, in their opinion, Mr. Bell was rather more depressing in his report than he need have been, although they considered it their duty to submit it in its entirety to the shareholders. One reason accounting for this was that the last month Mr. Bell had had great expectations of making an important discovery in the lower workings at Trinidad Mine, and being disappointed in that respect had, no doubt, affected the general tenor of his letter. There were two points in which the directors thought they were justified in saying Mr. Bell's report was more depressing than need have been, because he was hardly justified in the supposition that the natives realised such large quantities of gold, because in the bottom of the mines, although bungy, some large deposits of gold had been found. Again, he would remind the shareholders that the property was practically still undeveloped. The two mines upon which, since the revolution, they had been entirely depending for their returns had been at work but a short time. Although since Mr. Bell's return to the mines the total loss had been 6750L—that is, from April to present—he thought he could show that that loss had accrued in a manner which was fairly accounted for. The loss upon May accrued because Mr. Bell had not got back till the third week in April, and, therefore, it was perfectly impossible to reduce the cost, which he had determined to do when he left the directors. The loss in June arose from the floods having damaged the tramways, and otherwise impeded the works; then came the revolution, and the payment of 202L and 135L, passage money for the European staff to this country. And when the revolution ceased there were no remittances for two months; and the next two, January and February, showed a loss of 271L and 169L, chiefly from expenditure at the mines again increasing. Being short of hands, Mr. Bell was unable to keep open the mines, so that when the revolution ceased it became necessary to incur a large expenditure. In January, 1870, the total balance of cash in hand was 4059L, and at the present time the total amounted to 4246L, so that during those six months there had been no loss, but an actual gain of something like 200L. According to Mr. Bell's last letter, he expected to be able to connect the workings of the Trinidad Mine with those of San Antonio, and expressed his belief that the workings from the former would open out some of the better portions of the San Antonio lode. Although there was a sufficient sum of money in hand, if it were really and fairly available, to meet one half-year's debenture interest, the directors felt by so doing they would be unable to forward remittances to the mines, and thus seriously impair their working position. The directors had not only expectations of getting better returns from these two mines, but it was hoped that by degrees Mr. Bell would be able to re-open the San Domingo and Consuelo Mines, which had not been worked since the revolution. The present position of the company was, that they had to meet,

on July 23, the deferred interest for six months, as the debentures, as well as that for the six months, would then fall due, the aggregate amount being 3000L. It was for the shareholders to consider whether this money should be met, or whether they should still trust to the forbearance of the debenture holders. His own opinion was that the debenture holders would suffer no damage so long as the mines went on working as at present—that is, without getting into fresh debt—because the more they worked the more they were developing the property; but, on the other hand, the shareholders should know that something like 4000L of debentures were held by those who were not shareholders, and that any one of them, holding over 50L, might at any time force them to a re-construction of the company. Therefore, it was clearly to the interest of the shareholders to take up among them the unallotted debentures, amounting to 6000L If that amount were taken up the directors would be enabled to pay the interest now due, and to hold their way till the San Domingo cross-cut had been completed, when Mr. Bell seemed to hope that more profitable workings would be opened out. All he, in conclusion, could say was, that as there was some little time to elapse before the second half-year's interest upon the debentures fell due, the board would much like to hear from the meeting what course they deemed it most prudent to adopt. (Hear, hear.) His lordship then moved that the report of the directors be received and adopted.

Mr. G. NOAKES, F.G.S. (managing director), in seconding the proposition, stated that he felt justified in saying that if the improvements which had taken place two months previously in the end driving east from Trinidad Mine had continued there was every probability to believe that the present returns from the mines would have enabled them to meet the debenture interest already accrued. The shareholders, he said, could, by reference to the map which had been circulated with the report, at once see that this opinion was fairly reasonable; and although the falling off at this point had effected the immediate returns, there was still a fair prospect that the good bunch of ore now opening out at the back of No. 5 level, west of San Antonio Mine, would hold down, as the lode is stated to be strong in the bottom, in which case the ends in the deep adit level, driving west from San Antonio Mine, and east from Trinidad, were both approaching this adit of ore, which in all probability might materially improve the general position. He put forth this as a fair mining prospect, without, of course, guaranteeing the certainty of such results. The shareholders on reference to the map, which give in figures the value in pennyweights per ton of ore, would see how varied the value of the ground proved on working, still it was an encouraging feature to find that the ground in the lower levels was auriferous throughout, and in some points of equal value to that of shallow levels. Another important consideration for the shareholders in the deliberation of the course they might be called to pursue is the fact that they possess a considerable number of mines, all of which, in his lordship's opinion, are yet undeveloped—in fact, scarcely anything has been done in the mines by the present company beyond removing the stones left by the old workers, and, judging from the productive character of these old workings, it is but fair to presume that by a persevering and systematic exploration of the ground yet unworked further valuable discoveries will be made. It must also be borne in mind that the company has already a considerable plant erected at the mines, and a considerable amount of machinery lying ready to be erected as soon as the circumstances of the mine require it. The capabilities of these appliances are sufficient for an output of five times the amount of present returns with the mines sufficiently opened to supply the ore for it. These considerations alone he thought, should be sufficient to induce shareholders to make another effort to preserve for their own benefit this large and valuable property. He was, therefore, urgent that the shareholders present should devise some means whereby the company could be held together, and no chance lost of being recouped their large outlay. His lordship had referred to the power of the debenture holders taking action to force the company to dissolve. Since his lordship had referred to that point he (Mr. Noakes) would impress on the holders of royalty as well as ordinary shares to think under such circumstances what was the best course to adopt. It had occurred to him that if such an extreme case should arise (although he did not for one moment apprehend that it would), that it would be well for both classes of shareholders to combine together to wind up the company voluntarily, without expense, and form a new company, divided into 45,000 shares of 1L each, 26,000L of which would go to pay off the debentures, and leave a surplus capital, which, with the large and efficient plant already at the mines, would enable the company to develop the property upon a proper scale, without the burden of its present encumbrance.

A lengthened discussion ensued, during which Mr. PARKE PITFAR, a director, representing 3600L of the debentures already issued, and Mr. NOAKES 1000L, agreed to take in lieu of interest a like amount of the unallotted debentures.

The report of the directors was received and adopted, and the board were requested to forward a circular, inviting debenture holders to accept unallotted debentures in payment of the interest now due, and which would fall due on July 24, provided the shareholders took up the remaining debentures, and urging the shareholders to subscribe for the debentures on these terms.

A unanimous vote of thanks having been passed to the Chairman and directors, the meeting was adjourned till July 20.

THE SOUTH VAN LEAD MINING COMPANY.

The first ordinary general meeting of shareholders was held at the London Tavern, yesterday.—Mr. JAMES WESTON in the chair.

Mr. MATTHEW GREENE (the secretary) read the notice convening the meeting.

The reports of the directors and agent were read, as follows:—

This is the first meeting of the members of this company has been called thus early in order to comply with the Joint Stock Companies Act of 1867, which requires the first meeting to take place within four months of the registration of the company. Your directors have much pleasure in meeting you at so early a date, as although four months only have elapsed since they commenced operations at the mine, its prospects have considerably improved. The operations have been confined to exploring the main lode, and a lode at this point showing the most favourable indications of the formation of large deposits of ore beneath, and looking at the surrounding mines these will in all probability be discovered at no great depth from our present workings. With the view to more quickly prove this portion of our property, your directors have ordered a shaft to be sunk so as to intersect the lode at the 40, where they naturally look to finding a good course of ore. This shaft is already down 8 fms. Besides the lode just mentioned you are aware there are two other lodes in the sett, but your directors have deemed it advisable to prosecute the one our operations are confined to at present with vigour (leaving the others for a later trial), as it seems to offer the earliest chances of success, and with the least amount of expenditure. A water-wheel has just been erected on the mine. This wheel will enable us to carry on our explorations to a good depth. In conclusion, your directors express their belief that vigour and steady work will soon open up a good mine, and knowing the immense riches of the county for lead, should that mineral once be discovered in any quantities in the mine the company cannot fail to take a favourable place in the estimation of the investing public, and no exertion shall be wanting to make the mine a success. In accordance with the Articles of Association, the whole of the directors retire from office, but are eligible, and offer themselves for election.—JAMES WESTON, J. B. FREE-MAN, THOMAS GUNDRAY.

July 5.—I beg to hand you my report upon the mine from the commencement of operations, and as you are fully aware of the extent and situation of the same, I need not enter into details respecting it. There are three known lodes passing through the property of a highly congenital character, but one only has been operated upon. A level has been driven from the river side on the course of the lode eastward about 55 fms. The lode for this distance varies in size from 2 to 12 ft. wide, and exhibits the most favourable indications for the production of large deposits of lead ore at deeper points. By continuing on the course of this lode for about 50 fms. we should obtain backs from 35 fms. to 40 fms. But in order to more expeditiously prove this lode in depth an engine-shaft has been commenced from surface, which is now down 8 fms., and will intersect the lode about the 40, which will be a very reasonable depth to expect a good lode, as at the Van Mine a rich course of ore has been discovered at a much shallower level, and the surface of the ground in both mines being about the same level with each other, consequently we must reasonably anticipate good and profitable results when the lode is intersected. The lode at the adit level, as far as proved, is composed of very fine gossan, flookan, carbonate of lime, blende, and a little lead and copper ore, and is of a well-defined description. In fact, my opinion is that this lode cannot fail to be productive at a deeper point, judging from the character of the same. In order to fully develop this valuable piece of ground, a water-wheel is now in course of erection, 18 ft. diameter and 6 ft. breast, which will be completed by next Saturday, and will be of sufficient power to prove the mine at a very reasonable depth. You will observe that no time has been lost in the preparation and erection of the wheel, as it is now only five weeks since it was first commenced.—JAMES RICHARDS.

The CHAIRMAN, in moving the reception and adoption of the reports, said that, as they were all law-abiding people, the meeting they were then assembled at had been called earlier than the directors could have wished, in order to comply with a most necessary clause in the new Act. But although so short a time had elapsed, yet the amount of work done had been considerable, and the mine was opening up very well; of course, shareholders could not expect to hear of any great things from so young a mine, but the character of the ground they were then working was most favourable, and he hoped by the time of their next meeting to have the pleasure of giving them a more full and detailed account of the operations. Their business that day was simply of a formal character; he would, therefore, put to the meeting that the reports of the directors and agent be received and adopted, which was seconded and carried unanimously. The next business, the Chairman said, was the election of directors for the ensuing year. In accordance with the Articles of Association the whole of the directors retire from office, but, being eligible, offer themselves for re-election, and should the shareholders have been satisfied with the mode in which they had conducted their affairs, and re-elect them, he could assure them, both on behalf of himself and other members of the board, that their exertions would be directed to making the mine a success, not only on account of themselves (who were greatly interested in its welfare), but also for the benefit of their co-adventurers, and the advancement of the mining interest in general. There was a vacancy for another gentleman on the board, if they should deem it advisable to fill it up.

It was proposed by Mr. RICHARDSON, seconded by Mr. DEVINE, and carried unanimously that the directors be re-elected to act for the ensuing year.

The CHAIRMAN said he had much pleasure in accepting in his own name and in that of his co-directors this renewed mark of their confidence, showing they did not think so very badly of them. Their office did not carry with it any renumeration; they had the greatest desire to make the mine a success, which with the assistance of their indefatigable manager, Capt. Richards, and the exertions of their secretary, Mr. Matthew Greene, they hoped soon to accomplish. As an instance of Capt. Richards' exertions, he might tell the meeting that five weeks ago it was resolved to erect a water-wheel over the shaft they are now sinking to cut the lode at the 40. Capt. Richards then said that he would have the wheel up and ready within the five weeks, and as they would see from the report, he had kept his word. The wheel was quite ready, and would be started on Monday. The only other business to transact was the election of an auditor, and this the directors hoped the shareholders would do, and that he would be one of

After a little discussion, it was resolved to leave the appointment of auditor to the directors.

Capt. RICHARDS, in answer to questions, said he felt more confident than ever that under where they were at present working they would meet with some large accumulations of ore, which seem to abound in this country; and he was in hopes the shaft they were then sinking would intersect it at or before the 40. He was greatly pleased with the character of the ground they were then in, which was the most congenial he had seen for large deposits of lead. The shaft was being sunk at the rate of 3 fms. per month, but they would cross-cut for the lode before they got to the 40.

Votes of thanks were passed to the manager, Capt. James Richards, and to the secretary, Mr. Matthew Greene. The usual courtesies to the Chairman terminated the proceedings.

COLONIAL BANK.

The half-yearly general meeting of proprietors was held at the London Tavern, on Thursday.—Mr. GURNEY HOARE in the chair.

Mr. OLVERET, the secretary, read the notice convening the meeting, and the directors' report was submitted.

In accordance with the requisitions of the charter, the following statement of the debts and assets of the corporation on Dec. 31, 1869, and of the net profit made during the half-year ending at that date, is submitted to the proprietors:—

Dr.—Circulation	£ 324,021 19 2
Deposits, bills payable, and other liabilities	2,302,390 16 8
Paid-up capital	500,000 0 0
Reserved fund	145,000 0 0
Balance of profit from last half-year	2,429 18 1
Net profit for the half-year	43,117 18 2
Total	£ 2,817,060 12 1

Cr.—Specie

Due to the bank in the colonies, on bills discounted and purchased (including those past due), &c.	£ 1,97,805 11 7
Due to the bank in the colonies, on current accounts	1,551,069 18 11
Due to the bank in London, on bills remitted, cash at bankers, &c.	19,516 1 9
Bank premises and furniture, in London and the colonies	1,440,920 14 10
Total	£ 3,217,060 12 1

bunch of tin gone through in the level above. There are also tribute pitches set at 12s. in 12. This is a very important part of the mine, being close to East Wheal Lovell, having the same character ground and quality of tin as theirs. It is said that had there been a sufficient supply of water at the stamps they could at the present time leave profits to the adventurers.

EAST PARYS UNITED (Anglesey).—The discovery of a valuable body of copper ore of high percentage in the lodes of this sett, running from the Parys Mountain and Mona Mines, has considerably increased in value as they get down in depth, and quantities of ore continue to be raised of the same character as the celebrated Parys Mountain and Mona Mines, of which this sett is an extension east on the same lodes and stratum of ground. Capt. Thomas Mitchell, the manager of the East Parys United Mines, is the chief engineer and manager of the Parys Mountain Mines, and has been employed in this district upwards of 16 years. He expresses a strong opinion of the great value of the East Parys property, in conjunction with the opinions and reports given by Messrs. Storrier and St. C. E., of Glasgow, Capt. Alfred Jenkins, Thomas Trevithick, and others, all of whom are well-known mining authorities.

WHEAL CHARLOTTE.—Among the mining enterprises which the recent high price of tin has caused to be developed, perhaps none has more promising prospects than the revival of New Wheal Charlotte Mine, which was abandoned some fifteen years ago, at a time when such enterprises were flagging, and the price of tin was much lower than at present. Seven months ago the efforts which had been made by a few local gentlemen culminated in the commencement of active operations, and since then the old workings have to a large extent been pumped out; engines and stamps set to work, and sufficient ore raised and crushed to convince the most sceptical, if any were sceptical, that there was material there giving promise of future wealth.

CAR GYNON.—The lode in No. 1 winze, below the 40, is looking more promising than it was, and worth about 10 cwt. of lead ore per fathom, and improving. The lode in No. 2 winze is worth 1 ton of lead ore per fathom, and water very troublesome for sinking. In the 40, west of shaft, the lode is getting larger, and a little water is issuing from the end; it is producing occasional stones of lead ore, and promises an improvement. The stopes in back of the 40 and bottom of the 30 are worth about 10 cwt. of lead ore per fathom. In the 30, east of shaft, we have met with a cross-lode, but we appear to be getting through it, and the east and west lode is getting more compact, and producing a little blende. In the winze sinking below the adit on the south lode we are driven out with water since the rain on Tuesday last; the lode in bottom of this winze is worth upwards of 2 tons of blende per fathom, and about 6 cwt. of lead ore. The water is in also at the 50 fm. level, as the wheal has been idle, and we are putting on the connections for the stone breaker, which we expect to have at work in a day or two. We are changing the working barre of our middle lift to-day, and hope to have it at work again this evening.

REPORT FROM THE FOREST OF DEAN.

The meeting referred to in last week's Journal took place on Monday, Mr. W. P. Price, M.P., occupied the chair, and there were present Mr. S. S. Marling, M.P., Major Probyn, Major King, Messrs. E. Crawshay and Barrett, Messrs. James and Greenham; Mr. G. B. Keeling, Severn and Wye engineer; Mr. H. D. Hoskold, engineer; Mr. Corbett, Mr. G. Atkinson, M.E.; Messrs. Brain; Mr. W. W. Smith, solicitor; Messrs. Wintle and Maule, solicitors, Newnham; Mr. James, Ebb Vale Company, and a great many others.

The CHAIRMAN, after asking whether they wished the notice convening the meeting read, and receiving no reply, said he would assume that they would take it as read; then, before commencing the proceedings, it was his painful duty to state that he had received a letter that morning from his friend Colonel King-cote, to the effect that he would not be able to attend the meeting of the Defence Association, as he had to attend the funeral of an uncle who died suddenly. They would all admit the validity of his excuse, and he had only to say that it seemed to him that Mr. Marling ought to change places, and be in the position which he (Mr. Price) was occupying. But although Mr. Marling appreciated all the efforts of his constituents, and more particularly those interested in the Forest of Dean, yet he had not the good fortune, like himself, to be a Forester, and he did not know whether he was the owner of gales here, as he (the Chairman) was. It was to that fact that he attributed the distinction he enjoyed that day of the preference which had placed him in that chair. He supposed he might say for Mr. Marling, as for himself, that they both esteemed themselves fortunate in obtaining that rather unusual holiday. They had the pleasure of meeting the Foresters in their Parliament House in the Forest of Dean, which was a much more agreeable place at this time of the year than the place he had usually to attend at St. Stephens. They all knew the business which summoned them here that day. So far back as in the month of August, 1863, certain notices were issued by the Crown, followed up by further notices in the year 1869, which threatened to invade the rights of the Foresters in the mineral property in the Forest of Dean. In consequence of those notices meetings were called to consider the position of the Foresters, and counsels' opinions were taken as to the rights of the Crown with reference to the proceedings which it was threatened to take. The meeting was advised by counsel learned in the law, that the Crown was overstepping its powers, and intended to deal with the property of the Foresters in a way which the law would not enable them to do. In consequence of the advice, an interview was sought with the representative of the Crown—the Hon. J. K. Howard. The two principal points to which the action of the Crown was objected to was with reference to Nos. 4 and 14 of the rules and regulations under which the mineral property had been worked. It had been always his impression, and that of others interested in the mineral property of the district, that the gales had the right of recouping themselves in any year out of overworkings the dead rents which had been paid in previous years during which the property was not worked, or not sufficiently worked, to recover the dead rents. That power of recouping was one of the rights threatened by the proceedings of the Crown. Moreover, it claimed to have the power of forfeiting, in cases where gales had not been opened within five years of the grant. Those two points vitally affected the rights of all parties to some extent, and required, no doubt, to be carefully and vigilantly watched.

An interview took place with Mr. Howard in the month of November in last year. He had not himself had the good fortune to be present, but his friends, Col. King-cote, Mr. S. S. Marling, and Mr. Sheriff (member for Worcester) formed part of the deputation. In consequence of that meeting, a more detailed statement of the grievances was drawn up, and submitted to Mr. Howard at a subsequent meeting at the Office of Woods, which was held on Dec. 8 in the same year. At that meeting he (the Chairman) had the privilege of being present, and they left in the hope that Mr. Howard would have consented to have made some proposal for the settlement of the question in dispute. They were, however, somewhat disappointed at receiving from Mr. Howard, in the month of December, a letter declining to make proposals. The letter was very discouraging indeed, and left them no alternative but to put themselves upon their own defence, and to take steps to resist the action on the part of the Crown. A committee was accordingly appointed for that purpose, and went into the question. It so happened, however, that he shortly afterwards met Mr. Howard in one of the streets of London, and asked him whether or not it would not be better in order to avoid a collision between the Crown and the Foresters to submit the whole question to parliamentary enquiry by the appointment of a select committee. Mr. Howard replied that if he (the Chairman) would give him a few days to consider it, he would be prepared to give him some definite answer. Accordingly, a few days after he called again on Mr. Howard, and had another interview with him and with Mr. Watson, the solicitor to the office. Mr. Watson stated that he objected to the appointment of a select committee, fearing there would necessarily be much delay in its proceedings; and then, after the committee had enquired into the question, it would have no power to make the alterations which might be felt to be desirable, even supposing that the House of Commons were prepared to grant a committee at all. At the same time, while they objected to the appointment of a committee, a suggestion was thrown out that there was another course which might meet the views of it, and be more satisfactory to both parties—namely, a commission of enquiry, which would not only recommend, but could give their recommendations the validity of law. This commission could enquire into the rules and regulations, could ascertain what were the existing rights, and could ascertain how far those rights were consistent with their own claims, and to what they could be modified for the general convenience and advantage.

The Chairman at once communicated with Mr. Wintle, who advised with some gentlemen interested in the matter, the consequence of which was that they had another interview with Mr. Howard and Mr. Watson, when the subject was discussed, and it was suggested that a consultation should take place between the parties interested in the Forest. They discussed the facts at considerable length, and it was arranged that they should put down the general effect of the discussion, to be submitted to Mr. Watson, and that a meeting should be convened for the express purpose of taking it into consideration. He had the substance of those notes there. He hardly knew whether it was desirable to read them at full length, but there were these:—"That an Act of Parliament be applied for to the next session of Parliament for a commission, to consist of three commissioners, to be appointed—one by the Enclosure Commissioners, one by the Lord Chancellor, and one by the Lord Chief Justice. Two such commissioners to be barristers and one a mining engineer, or two mining engineers and one barrister." On that point it was suggested by himself that one of the commissioners should be a barrister, one a mining engineer, and another a commercial man, to be appointed by the Board of Trade. When the commissioners were appointed before to deal with the Forest property two of them were professionally concerned with the mining property, the third was elected by the Foresters. He suggested that some independent man, who would be conversant with the subject, and had nothing to gain by it, should be appointed. It was an extremely difficult thing to find such a person, and to induce him to take office. Then the whole question should be referred to the commission of enquiry into the question to which he had alluded, and which were more particularly at issue. "The Crown's power of forfeiture of non-opening of a mine, and the mine owner's right to recoup prior short workings out of subsequent overworkings, and either decide what is the law on those points, or by exercise of a kind of equitable jurisdiction, remodel the rules and direct what, under all circumstances, shall be the law on those points. The commissioners also to have power to revise, alter, modify, or enlarge the existing rules." It was thought that so large a question of rights and interests should be committed to the arbitration of three gentlemen, and it was thought right to reserve the power of appeal to one of the superior courts of law. It was suggested by a gentleman present that the appeal should be made to the Privy Council. He did not assume that that would be determined that day, but by some committee appointed for that purpose. He understood that there were many little points for which further powers should be taken by the Crown relating to the question of boundaries and the granting of leases, in respect of which the Crown did not appear to have the full power they might possess. Advantage, he hoped, would be taken of the act of the Forest to give those powers, and generally to enable the property of the Forest to be administered in a way most advantageous to the Crown, and at the same time advantageous to the gales. It was proposed that the suggestion should be submitted to them to-day, and in anticipation of the meeting the committee of the Defence Association were prepared to recommend the proposal made on behalf of the Crown, and it would be submitted to them in the form of a resolution. He thought it would be better to defer any remarks for the present, and would call on Mr. E. Crawshay to move the first resolution.

Mr. EDWIN CRAWSHAY moved, "That this meeting having attentively considered the statement made by the Chairman and others as to the

origin, nature, and progress of the differences which existed between the Crown and mineral properties, with reference more especially to the two questions of forfeiture and short workings, and the changes generally which the Crown authorities have expressed their intention, by circulars and letters, to introduce into the Forest with reference to the granting of gales the terms on which such gales are and shall for the future be held, and having also considered the notes on conference between the Hon. Mr. Howard, Mr. Watson, Mr. Price, and Mr. Wintle, on June 12 last, and the memorandum of points for legislation since received from Mr. Watson—Resolved: That with regard to the former subject this meeting is disposed to accept the principle of a commission sanctioned by Act of Parliament, as contemplated in paragraphs 1, 2, 3, 4, and 5 of the said notes, as originally drawn, but is not prepared to accept all restrictions apparently contemplated by the alterations introduced by Mr. Watson, in paragraphs 2, 3, and 4 of the said notes; and that as regards the memorandum of points for legislation, while recognising the desirability of an improved system of registration of gales in Dean Forest, and of additional powers as regards the substitution of barriers, renewal of leases, and so forth like, cannot pledge themselves to adopt the proposed alterations as embodied in Mr. Watson's aforesaid

memorandum without further information and consideration.

Mr. SULLY seconded the resolution, and said: We have arrived at a point which it behoves us to take action and do, firmly with the case, and I am of opinion that this is a question which renders it desirable that we should act unitedly; let us, therefore, act as Englishmen and Foresters, do all we can to maintain our rights, and we want no more.

Mr. MARLING: It gives me great pleasure to meet you here to-day. You have certain rights, and the Crown has certain rights, and where those rights exist it is not uncommon that differences of opinion shall arise, and I believe you will maintain your rights much better by appointing a committee to settle the basis on which this arbitration shall take place, leaving it to Mr. Price and the other gentlemen. Col. King-cote and myself will be most happy to use every exertion in order that the Forest may be better utilised for the benefit of the people.

Mr. MARLING: It is a question more affecting the owners of gales than the general public. It does not affect the Forest rights of any other kind.

Mr. HENRY MONTAGUE JAMES (of the firm of the Dean Forest Iron Company) next rose, and remarked that they had now determined on the course of action to take in this important question. It had been clearly and easily explained by Mr. Price and Mr. Marling, who had promised to do all they could to further the matter. It was necessary that somebody should work for them, and the gentlemen whom he had last mentioned had come forward and proffered their assistance. It had, however, been considered up to the present point by the committee which had been appointed at a meeting first held at the Seven Bank Hotel. He had, therefore, proposed the following resolution:—

"That the acts and proceedings of the committee of the association be confirmed, and that it be re-appointed, with power to add to its numbers, for the purpose of communicating, either personally or by letter, with Mr. Howard, the foregoing resolution, and the general feeling of the Forest, and of inducing him to have prepared early in the ensuing autumn the draft of a bill for their consideration, to be submitted to Parliament, authorising the appointment of the suggested commission. Such committee to report to a future meeting before final action is taken." Mr. James proceeded to say that he was sure those gentlemen who had chosen to act on the committee in this matter would, if re-elected, do their best to further the interest of those who would be affected by the carrying out of the intimation conveyed in the circular referred to in the first resolution. He wished to add, as one of the committee, how much they were indebted to Mr. Price and the members of the Western Division. He wished particularly to return his thanks to those gentlemen. (Applause.)

Major KING seconded the resolution.—The CHAIRMAN having again moved the resolutions they were unanimously agreed to. A vote of thanks was now proposed and accorded to Mr. Price and Mr. Marling for taking the interest

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Mining Correspondence.

BRITISH MINES.

ABERDAUNANT.—E. Mumford, July 7: The lode in the No. 2 adit is of much the same character as last reported, yielding fine stones of lead ore. Good progress has been made in driving it. The stopes in the back of this are without any change, still 2 tons of dressed lead per fathom. The cross-cut men- tioned as commenced in my last is producing stones of lead ore, mixed with carbonate of lime.

BALLACORKISH.—Capt. Trewren, July 2: In the end driving north of the engine-shaft, in the adit level, the lode continues to look very promising, producing tolerably good work for blends, and spotted with silver-lead; this end is letting out more water than for some time past, and from present appearance I look forward to a further improvement, since the lode is getting more settled and regular as we extend northward. In the end driving north of the engine-shaft, in the 12 fm. level under the adit, we are to all appearance through the Great Dowk lode, as the ground showing itself in the present forebreast is firm, hard killas, and is of a different character to what we passed through for several fathoms in width; we shall open more of this ground to the north, from whence water is now coming. In the engine-shaft sinking below the 24 fathom level the ground is favourable for progress.

BLAEN CAELAN.—J. Evans, July 6: The underground engine works well, and the 10 fathom adit is now dry. I have set four men to stop down a piece of ground, so as to make room for starting a cross-cut south from the end of this level, to come under the rich bunch we have in the level above. We have a good pile of ore stuff to draw up from here, and this will be done as soon as the drawing-machine attached to the little engine is quite completed. We keep the 25 east steadily advancing; the lode has improved, is very congenial for lead, and during the last week it has got back to its original bearing. The cross-cut north from this level is without change, as also is the end of main adit.

BLUE HILLS.—S. Bennetts, July 2: In the 66, east of Lether's, there is as yet little change in the lode, and the ground somewhat harder than it has been. In the rise above this level the lode is about 1 ft. wide, but not of much value. In the winze below the 60 it is 1½ ft. wide, saving work, but not so thin as it was nearer the level. In the 60 east end it is also about 1½ foot wide, and worth 4 ft. to 5 ft. per fathom. The stop in the back of the 15, the Wheal Betsy lode, is again improved towards the western end of the stop, where it is worth 7 ft. per fathom.

BRYNPOSTIG.—John Kitto, July 7: The 48, east of engine-shaft, has reached the cross-course, which for the present has split and otherwise disturbed the usual bearing and character of the lode, but as we have passed through this same cross-course in all the upper levels, where it has produced the same effect, I quite expect it in this level. We have got a long run of ore ground before us to the east of the cross-course, and as soon as we get beyond its influence the lode will, undoubtedly, resume its former productiveness. The winze sinking below the 55 is in good ore ground, worth about 25 cwt. to the fathom. In the 36 fm. level end, driving east, the lode is of the most promising character, and is yielding good saving work for lead and blends. We shall make the necessary arrangements this week for resuming the sinking of the engine-shaft for another level.

BUDNICK CONSOLS.—J. Rawlings, R. Hill, July 6: We have sold a parcel of tin, which realised \$12.50 per ton. The tributaries are in a fair way of getting on again. No further change has taken place since our last report.

CAPE CORNWALL.—Richard Pryor, John Davey, July 5: On Saturday last we set the following:—The 100 cross-cut to drive north of engine-shaft, by four men, at 102 ft. per fathom; the ground in the end is not so hard as it has been, but letting out an increased quantity of water, which is what might be expected on getting near a lode. The 70 cross-cut to drive south of engine-shaft, by four men, at 122 ft. per fathom; in this end the ground is becoming more settled, and very congenial for the production of mineral as we progress, and should we meet with the lode in this stratum we expect good results.

CAPFAGH.—H. Thomas, July 4: We have several of the pumps on the mine. I hope to have the 14 fm. lifts in its place by Saturday or Monday next. Nothing is left undone to push forward the work as quick as possible. I expect we shall have the lift complete on the mine next Monday.

CARADON CONSOLS.—S. Bennetts, July 5: The lode is not yet cut in the 100 north. In the 90 east the Clymo's lode is 4 feet wide, producing saving work, but not to value. In the same level west it is 1½ ft. wide, and not quite as ore as last reported. The No. 2 lode in the winze below the 78, contains a small quantity of ore, and the ground very easy. The 78 east, on this lode, continues to yield 1 ton of ore per fathom; a sparry cross-course, 6 in. wide, has just crossed the end, without apparently changing the lode, further than to cut off a sort of red flockan, which has continued on its south wall from the main cross-course.

CARDIGAN BAY CONSOLS.—G. Williams, July 7: Pensarn: The lode in the east and west drivings in the 10 fm. level is daily improving. In the eastern level the vein is 4 feet wide, consisting of spar, blonde, copper, and silver-lead ore of rich quality. The lode in the western end is 5 ft. wide, composed of slate, mastic copper, and rich branches of lead ore throughout; a better looking lode cannot be seen in any mine at such a shallow depth.—North Adit: The stratum is everything that can be desired, and I expect to cut the lode every blast we are making.—Boundary Shaft: We are making rapid progress in sinking this shaft since the horse-whim has been erected, and the lode is worth 30% per fathom. No change in any other part of the property. The crusher has been altered in the foundry, and is completed.

CHIVERTON.—G. E. Tremayne, J. Borlase, July 6: Setting Report: Borlase's engine-shaft, on the north and south lode, to sink 11 fms. below the 50, put in penthouse, cut plat, and all other necessaries at the 60, by nine men, for the sum of 100 ft. and if completed in three months the shaftmen to have a premium of 17 per man. The lode in the bottom of the shaft is 3 ft. wide, composed of spar, mastic, and flockan with spots of lead. The 40 fm. level to drive east on the course of the east and west lode, by six men, at 22 ft. per fathom; the lode is 1 ft. wide, composed of flockan, spar, mastic, and blonde, and producing saving work for lead. The 40 fm. level to drive west, by four men, at 21 ft. per fathom; the lode is 1 ft. wide, consisting of spar, mastic, blonde, and lead. Here we are anticipating an early improvement, as the lode is somewhat under the influence of the north and south lode, but as we progress west it seems to get over it, and looks very promising. The 30 fm. level to drive east, by two men, at 22 ft. per fathom; the lode is 9 in. wide, consisting of spar, flockan, white iron, and mastic. Southampton Shaft: We are sinking a winze in the bottom of the 10 fm. level, by six men, at 11. 10s. per fathom; the lode is 2½ ft. wide, composed of flockan, white iron, and mastic, with fine lead disseminated through it. From the present appearances of the lode in the bottom of the winze it is our opinion that nothing but depth is required to prove this lode productive. We are glad to say our engine and pitwork are working well.

CHIVERTON MOOR.—G. E. Tremayne, W. Bennetts, July 2: Setting Report: A cross-cut to drive at the 105 fm. level, by six men, for the month, at 72 ft. per fathom. The 95 fm. level to drive west, by six men, for the month, at 37 ft. per fathom. The 85 fm. level to drive west, by six men, for the month, at 37 ft. per fathom; the lode is worth 15 cwt. of lead per fathom. A rise in the back of the 85 fm. level, by six men, for the month, at 21. 10s. per fathom; the lode is worth 15 cwt. of lead per fathom. A stop in the back of the 85 fm. level, west of rise, by six men, for the month, at 21. 10s. per fathom; the lode is worth 15 cwt. of lead per fathom. A winze to sink in the bottom of the 85 fm. level, by six men, for the month, at 41 ft. per fathom; the lode is worth 2 cwt. of lead per fathom. A winze to sink in the bottom of the 75 fm. level, by six men, for the month, at 41 ft. per fathom; the lode is worth 15 cwt. of lead per fathom. A stop in the back of the 75 fm. level, by six men, for the month, at 21 ft. per fathom; the lode is 1 ft. wide, consisting of spar, mastic, blonde, and lead. The trial shaft, east of Harris's shaft, is sunk 18 fms., and we hope to reach a 30 fm. level in about a week, when we shall commence to drive north and south to cut the lode. A stop in the back of the 65 fm. level, east of old flat-rod shaft, by six men, for the month, at 11. 10s. per fathom; the lode is worth 6 cwt. of lead per fathom. A cross-cut to drive at the 40 fm. level, north of Ward's shaft, by six men, for the month, at 37 ft. per fathom. Our pay ad setting passed off very satisfactorily.

CRENNER AND WHEAL ABRAHAM UNITED.—Wm. Kitto, W. Thomas, W. J. Paul, July 5: Wilson's Engine-Shaft: The sumpan will complete securing and cutting the ground to bring down the main rod this week.—Middle Engine-Shaft: We expect the plunger-rod will be put to work by the end of the week in the 170. The men in the 60 cross-cut, north of Gard's shaft, cut a lode yesterday, and have got it into about 1½ ft.; it is composed of spar, mastic, and, easy ground for driving. We shall continue to drive the cross-cut to cut the north lode before opening on this. There is nothing new to report on in the other cross-cuts, nor in the ends driving on the course of the lode. The shaft-tackle and pulley-stands at Blewett's shaft were completed yesterday, and we commenced to draw with the wire-rope last night to get up the ore for the sampling, which is only a fortnight hence. The rope is working well, and will effect a great saving in the expense of drawing. All other operations, both underground and at surface, are being carried out satisfactorily.

CUDDRA.—F. Pickering, July 5: In the 142 end, driving west of Walker's shaft, the south or in part of the lode is 5 ft. wide, composed of quartz, peach, capel, and iron, but poor for tin. In the 130 fm. level west the lode is very large, and of a very kindly character; the south part of the same is producing saving work for tin. In the same level, east of the shaft, the in part of the lode is 2½ ft. wide, pre-entring a very kindly appearance, and yielding a little tin. In the 117 fm. level east we are still driving by the side of the lode; the ground in the end of the present time is spare for progress. The lodes in the stopes in the different levels are very large and strong, and have a very kindly appearance, but on the ever ge are only producing low-quality tin-stuff. All our operations are being carried out satisfactorily.

DEP LIFFEL.—July 6: The lode in the 120 yard level, east of cross-cut, at Truste's shaft, on the new vein, is about 14 in. wide, composed of clay, and producing good stones of lead ore, looking promising at present for an early improvement. In the 120, going west from cross-cut, the lode is fully 3 ft. wide, consisting of clay, and producing large solid lumps of lead ore; altogether a fine promising lode. Gossengroves is being made in driving the 80 yard level cross-cut south from Truste's shaft, towards the new vein; this cross-cut is now extended about 8 yards south of the shaft. We hope to see the lode at this point some time this month. The cross-cut driving south in the 170 to come under Truste's shaft, and the new vein is now extended about 5 yards from the level; the ground is getting a little more favourable for driving. There is no change in the deep level south-west since our last week's report. The lode in the 164, south fm. in the sump-winze, on Pantyfifth vein, is about 18 in. wide, in rather hard ground at present. In the 146, north of north shaft, on Pantyfifth vein, the lode is 18 in. wide, composed of spar, and producing good stones of lead ore, looking promising for further improvement; this level is now entering a promising piece of ground, where it is reported good ore is left in the levels above. Should this prove to be true we shall soon open out productive ground in this direction.

EAST CARN BREA.—John Rodda, July 6: We continue to sink by the side of No. 3 lode, in Thomas's engine-shaft. The lode in the 100 west is producing saving work for copper ore and tin. Buckley's shaft, on No. 6 lode is down 6 fms. below the 80 fm. level; the lode is 15 in. wide, worth 1 ton of copper ore per fathom, and producing saving work for tin. The lode in the 90 east will yield 1 ton of ore per fathom. In the 90 west the lode will yield from 1 to 2 tons of ore per fathom. The stop in the back of this level is worth 9½ tons of ore per fathom. No change in the 60 fm. level cross-cut, north of the old engine-shaft.

EAST PROVIDENCE.—J. Nancarrow, Wm. White, July 2: The following work was set to day.—The 132 to drive north of Boorman's, by six men, at 102 ft.

per fathom; the lode is rather small. The 134 to drive south by six men, at 61 ft. per fathom; the lode is 8 ft. wide, looks very promising for tin, and letting out water freely. The 122 to drive west, by four men, at 51 ft. per fm. This is on a new lode, recently intersected in driving south; it runs east and west, underlies north about 2 ft. in a fathom, contains a little tin, and is likely to improve as it approaches the cross-course, which is 10 fms. beyond the end. The 134 south is likely to reach this lode within a month, when an improvement may be expected. The 122 to drive north, by six men, at 51. 10s. per fm.; the lode is 5 ft. wide, and contains a great deal of capel and peach. A winze to sink below the 122 north, by four men, at 51 ft. per fm.; the lode is small. The 103 to drive north, by two men, at 51. 10s. per fm.; the lode is large, but does not contain tin to value. The 70 to drive east, by two men, at 71 ft. per fm.; the lode is small. We have also set four pitches to eight men, at an average tribute of 9s. in 17.

EAST WHEAL GREENVILLE.—G. R. Odgers, W. Bennetts, July 7: The men in the 45 east are desuling the lode, which will be taken down to-morrow; at the last taking down the lode was worth 2½ tons of ore per fathom, some of the ore being of excellent quality. In the 55 east the horse is wearing out, and we think we shall soon have as rich a lode as ever, these horses having hitherto invariably led to a course of ore. The stopes in the back of this level are worth in the aggregate 8 tons of copper ore per fathom. In the 75 we are happy to say we have just met with the finest course of ore ever yet seen in the mine; the lode in the end will produce 4 tons of excellent copper ore per fathom, and 10t. per fathom for tin, or in money value (say) fully 35t. per fathom; and there is a splendid lode in the back, worth more than 5 tons of ore per fathom. This end is 44 fms. behind the 55 end, and we are strongly of opinion that the ore in the 75 is a continuation of the 55 ore, only richer in quality. The importance of this discovery cannot, therefore, be over estimated. The lode in the 95 is worth 1 ton of copper ore per fathom, with a little tin. This end is 9 fms. behind the 75, and as the lode is presenting similar features to the 75, before the latter came into a course of ore, we think before long we shall have to announce a good discovery in the 95 also. We are making good progress towards our sampling, which we hope will considerably exceed the last.

EAST WHEAL SETON.—J. Vivian and Son, H. Arthur, July 7: There is no change requiring remark at any point of operation since the meeting of shareholders, except in the 34 fm. level, west of Cartwright's shaft, where the lode has improved in character, being from 3 to 4 ft. in width, and now yielding 2 tons of copper ore per fathom of excellent quality, and has an appearance indicating further improvement.

GAWTON COPPER.—G. Rowe, G. Rowe, Junr., July 2: In the 95, east from King's engine-shaft, the drivage is conducted on the north side of the lode, leaving a portion of the hard capels standing, until this point is sufficiently advanced to come under the run of ore ground going down below the 82. The lode in the 82, east of said shaft, is yielding 2 tons of ore per fathom. The lode in Miford's winze, sinking below the 82 west, is worth 6 tons of ore and mastic per fathom. The lode in the 70 east is yielding 1 ton of ore per fathom. The lode in the different stopes throughout the mine are without change, yielding 3, 6, and 9 tons of ore per fathom. To-day will be our monthly settings, particulars of which we will forward early in the coming week. Our last samplings of copper ore weighed 232 tons 19 cwt.

GORSedd AND CELYN LEVEL.—July 7: I have no particular change to report at these mines. The re-opening of Coetia Glynlyn shaft and operations at Cwrt Eithin are progressing favourably.

GREAT FROU POWNOG.—W. Wasley, July 7: Since my last report I have the lift of 5-in. pump put down in the new engine-shaft, and the portable engine fixed, with rods, &c., all complete, which I am glad to say is working first-class, and, although we were nearly beaten out with the whim, the engine keeps the water down now by working about a quarter of its time. The shaft is now about 30 yards deep, and is set to sink 8 yards deeper at 61 ft. per yard, the men to pay all the cost and land the stuff. I am glad to say that the water in the old engine-shaft is now down within about 7 ft. to the roof of the Day level, and it is still going down, so that I hope we shall not be long now before we shall be able to complete the clearing of the Day level up to the new engine-shaft.

GREAT RETTALLACK.—G. R. Odgers, J. Harris, July 6: The engine-shaft is about 45 ft. below the 50; the lode is 3 ft. wide, producing fine lumps of lead ore. We hope when the shaft is 2 fms. deeper to be able to sink a winze below the 50, where there is a fine course of lead, worth fully 2½ tons of lead per fathom. In the 50 end south there is no change. In the stopes above this level the men are desuling the lode, which at the last taking down was worth 7 cwt. of lead per fathom. The men are making good progress with the adit cross-cut for the blonde lode; the cross-cut is now driven 15 fms., and we hope to reach the lode in about 18 fms. further driving, which will probably take us about two months to accomplish.

GREAT RETTALLACK.—G. R. Odgers, J. Harris, July 2: Setting Report: The engine-shaft to sink below the 50 fm. level, by six men, at 162 ft. per fm.; lode 2 ft. wide, and producing good lumps of lead ore embedded in friable quartz and white iron; a kindly and strong lode. The 50 south, by two men, at 61 ft. per fm.; lode 20 in. to 2 ft. wide, kindly and strong lode. The 50 north, by two men, at 61 ft. per fm.; lode 20 ft. to 2 ft. wide, kindly and strong lode. The 50 fm. level, south of the engine-shaft, by four men, at 50 ft. per fm.; lode worth 7 cwt. of lead per fathom. The adit cross-cut towards the 50; the lode is 3 ft. wide, producing fine lumps of lead ore. We hope when the shaft is 2 fms. deeper to be able to sink a winze in the bottom of the 50, south of the engine-shaft, and the men are making good progress.

GREAT SOUTH CHIVERTON.—J. Nancarrow, July 1: At our survey to-day the following work was set. Gifford's engine-shaft to sink by 12 men, at 30 ft. per fathom; it is 11 fathoms below the 50, and would have been down 12 fathoms by this time, but the ground is much harder. We expect, however, to commence driving within three weeks from this time. The 50 to drive west, by three men, at 42 ft. per fathom; here the lodes are separating, they are now 3 feet apart, and the north one especially looks promising for lead. The 40 to drive east, by three men and three boys, at 41. 15s. per fathom; there is a solid leader of mastic in the lode, and its general appearance is good. The pitch above the 50 west is set to two men, at 9 ft. per ton.

GREAT SOUTH TOLGUS.—J. Rodda, July 6: The ground in the 166 fathom level cross-cut north is still hard. The lode in the 154, west of Lyle's engine-shaft, is worth 72 per fathom for tin. In the 149, west of No. 2 cross-cut, the lode is worth 102 per fathom for tin. We have not yet taken the tin lode in the 125 fathom level cross-cut south, but from the character of the ground, which is mixed with spar and mica, I consider that we are near it. The tribute department is looking better.

GREAT WEST CHIVERTON.—J. Nancarrow, June 24: The lode in the 24 west is improved in appearance; there is now a very fine lode in the end, containing a great deal of mastic, and occasionally a little lead, and looks as if it would become valuable in a little further driving. The ground in the 14 is of the same promising character as last reported; the appearance of the lode is good, and we have broken a little lead towards the bottom of the end. The rise on the south lode is not yet through, there being further to rise than we expected there was.

G. R. Stickland, July 1: The rise from adit, on No. 2 lode, is holed to surface, and the men are now enlarging and squaring the rise. We are also preparing for dropping lifts and connections.

GWYDDYR PARK CONSOLS.—W. Smith, July 5: Gwyn Liffon: No change in the driving here since last reported on; no lode taken down in the back of 8 fm. level, in Sutton's shaft, for the last week. We have pulled up some good lead from there last Saturday.—Gwyddyr: We will have finished squaring down Johnnie's shaft to-morrow, when we will begin to pull away the stuff to clear Harker's old mine.

HAREWOOD CONSOLS.—T. Nell, July 6: The engine shaft measured on Saturday last 16 fms., 4 ft. 9 in., and was again let to nine men, to sink on the course of the lode, stoned the month, at 14 ft. per fathom; the lode is from 4 to 5 ft. wide, and from present indications we may soon expect an improvement.

HARWOOD CONSOLS.—J. Nell, July 6: The new engine-shaft measured on Saturday last 16 fms., 4 ft. 9 in., and was again let to nine men, to sink on the course of the lode, stoned the month, at 14 ft. per fathom; the lode is from 4 to 5 ft. wide, and from present indications we may soon expect an improvement.

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HARWOOD CONSOLS.—J. Nell, July 6: The new engine-shaft measured on Saturday last 16 fms., 4 ft. 9 in., and was again let to nine men, to sink on the course of the lode, stoned the

surface to the adit, which is about 12 fathoms. We have also cleared from Bone's shaft to Sir Frederick's, or the engine-shaft, being about 60 fathoms, also cut down this shaft from surface to the adit 12 fathoms, cut ground for bearers and claspers, and done all the necessary work preparatory to forking the water below this level. We have also cleared and secured the adit south of Sir Frederick's shaft level. The adit is about 4 ft. wide, composed of gossan, muddle, quartz, and lead. From this it will be seen that we have cleared and secured the adit level south for upwards of 200 fms.; the lode for the greater part of this distance is composed of gossan, muddle, and lead, averaging 4 ft. in width, and altogether we consider the appearance as not to be exceeded at such a shallow depth by any mine in this county, and are not, in our opinion, far in producing large deposits of lead at deeper levels; and seeing that the kilns in which our lodes are embedded are precisely the same as our immediate rich neighbours (Chirkshire), we are now more than ever convinced of our having a valuable property to develop. We are taking down the shaft, pumping engine, which we purchased at Hallenbeazie, and shall soon have it in the mine. The engine-house is being built as rapidly as possible, and every effort is being made to get the engine to work. We have erected horses, &c., on the different shafts, and have the same in good working order.

PRINCE OF WALES.—J. and W. Gifford, July 4: We are progressing very

(4 feet), of a promising character, producing good work for tin; the sinking is suspended for the present to facilitate the building of the engine-house for a 36-in. cylinder engine for pumping and stamping, which is being done with all speed.

VAN CONSOLS.—T. Corfield, July 7: In Little's shaft we have very nice

stones of lead embedded in the clay. These are undoubtedly washed from the

productive nature of the lode in this the eastern part of the mine. The lode in

the 30 is much the same as when last reported on. All other operations are

going on well.

WEST BASSET.—G. Lightly, July 6: In the rise in back of the 164 east the

lode is yielding 1 ton of ore per fathom. In the 164 west the lode is also yield-

ing 1 ton of ore per fathom. In the rise in back of the 124, north of Percy's

shaft, the lode is worth 10s. per fathom for tin. In the 114 west, on the cau-

ter, the lode is worth 6s. per fathom for tin. In the 91, west of the Carnkie cross-

course, the lode is 1 ft. wide, composed of low-quality tinstuff. In the 84 west

the lode is worth 10s. per fathom for tin. In the 75 west the lode is 1 ft. wide,

saving for tin.

WEST DRAKE WALLS.—T. Gregory, July 6: We have cut into the north

lode from 5 to 6 ft., and no north wall as yet, therefore the cross-cut will be

continued; so far as laid open the lode produces some good stones of copper and

tin ore, and is altogether of a very promising character.

WEST GODOLPHIN.—J. Pope, Jun., July 4: The following bargains were

set on Saturday last: The deep adit level to drive south-east of Pressure shaft,

on the caufer lode, by two men, at 5s. 5s. per fathom; the lode is 18 in. wide,

worth 6s. or 6s. per fathom. The deep adit level to drive e of the caufer on

the north lode, by two men, at 5s. per fathom; the lode is 9 in. wide, saving

for tin. The deep adit level to drive east of Salt's shaft, on Hope lode, by two men, at 2s. 5s. per fathom; the lode is 1 ft. wide, low-quality tinstuff.

Two tribute pitches, by four men, at 1s. in 11, tribute. Vivian's shaft to sink be-

low the shallow adit level, by four men, as soon as the tributaries have sent up

their work; this will ventilate the deep adit levels, and lay open a profitable

course of tin ground. We are pushing on as fast as possible with the work pre-

paratory to erecting the engine, and hope to have the masons working in a

few days.

WEST GREAT WORK.—S. J. Reed, July 7: The great north lode, in the 30,

driving west of Harvey's shaft, and find, so far as seen, it is composed of

munde and spar, with yellow and grey copper ore. We are much pleased to

see this change under the gossan, and will advise you more fully to-morrow.

QUEEN.—W. Knott, July 8: Circumstances have hindered me from giving a

report in full this week. We have discovered a lode of silver in the shaft worth

at least 20s. per fathom.

REDMOOR.—F. Bennett, July 7: The lode in the 20 west is worth 2s. 10s. per

fathom, and has a kindly character for improvement. We have begun to drive

the 22 cross-cut south, on the north part of the lode; it is worth 10s. per fathom. The stops in the bottom of the adit, west of the winze, is worth 8s. per fathom. We

can do nothing in clearing the tin at the burning-house floors for want of water.

ROARING WATER.—H. Thomas, July 5: There is a strong and promising

lode in the 45, on Grady's lode, west of Gillman's shaft, composed of very rich

grey ore, embedded in beautiful quartz and pyrite; the ground is alto-

gether changed, and the prospects cheering, so much so that I would recommend

that the end be un-shed west as fast as possible.

SOUTH CONDUARROW.—J. Foote, G. Rickard, July 6: We have

just pricked into the south wall of the great gossan lode in the 50 fathom level

cross-cut, north of Harris's engine-shaft, and find, so far as seen, it is composed

of munde and spar, with yellow and grey copper ore. We are much pleased to

see this change under the gossan, and will advise you more fully to-morrow.

QUEEN.—W. Knott, July 8: Circumstances have hindered me from giving a

report in full this week. We have discovered a lode of silver in the shaft worth

at least 20s. per fathom.

WEST JEWELL.—John Mayne, July 7: Setting Report: Greene's engine-

shaft to sink and secure to the shallow adit level by nine men, at 4s. per fathom;

Sir Frederick's shaft to sink by nine men, at 10s. per fathom. In this shaft the

lode is larger, producing more gossan, which is a good indication of meeting

with a good lode of tin in sinking. Freeman's shaft to sink below the 17, by

four men, at 2s. 5s. per fathom; lode in the shaft worth 8s. per fathom. The

eastern end to drive by two men and two boys, at 1s. 5s. per fathom; lode in the

end worth 7s. per fathom. The west end to drive by four men at 2s. 5s. per

fathom; lode in the end worth 10s. per fathom. We are raising a large

quantity of tinstuff from the shafts and ends for the steam-stamps. The pitches

throughout the mine are looking very wet, and producing their usual quanti-

ties of tin. Masons are getting on rapidly with the building of engine-house.

WEST MARIA AND FORTESCUE CONSOLS.—Wm. Skewis, James Donnal,

July 7: West Maria Lode: The drivage is by the side of the lode in the 71, east

of Willesford's shaft, when last taken down it was worth 20s. per fathom, and

promising for an improvement. The lode in the 71 west is cut into 4 to 5 feet

thus far it is very promising, and yielding good saving work. In the 60 east

the lode is improved, now worth 30s. per fathom. The lode in the stop in back of

the 60 east, it is worth 25s. per fathom; and in the stop in bottom of the 60,

west of shaft, it is worth 25s. per fathom. There is no change as yet in taking

down the lode in the 60, west of Maria engine-shaft. The drivage is by the side of

the lode in the 51, east of Willesford's shaft.

WEST PANT-Y-GO.—July 6: The lode in No. 2 winze, in bottom of the 102,

east of engine-shaft, is still a very fine-looking one, being about 2s. 5s. wide,

composed of spar and a large quantity of blonde, with a little lead ore; the

ground is very much changed for the better, but the water has become strong

that we can do but very little in sinking with barrels, and it is my firm opinion

that if we could sink this winze to the depth of 10 fathoms, and open east and

west, we should have a good lode of lead, but in order to carry out this we shall

have to put up a rise a few fathoms in the back of the 102, just over the winze

when we shall communicate with the tributaries working from the bottom of the

99, which we can soon open out for a line of rods in this winze, and then by fix-

ing a 6-in. lift in No. 2 winze we shall prove the lode in the 112, both east and

west. We can work this lift with a wire rope through the 99. I think we have

sufficient wire-rope on the mine to do it, we have also a 6-in. lift on the mine

with the exception of a wind-bore. I have always had, and still have, very great

faith that if we could reach the 112 on the run of ore we should have a good

mine again. By referring to the old plan of the mine you will see at a glance

my object in putting down this winze to prove the bottom of the mine.

WEST PRINCE OF WALES.—J. Giffard, July 5: In costing out about 60 fms.

west of the south engine-shaft we have opened up on what we think to be the

Princess of Wales lode, which is 2 ft. wide, with a hook on the south wall.

WE ARE ENTERING.—We are entering a few feet on to its prove under.

WEST STIPERSTONES.—R. Waters, July 7: The engine-shaft is sunk 7 fms.

2 ft. from surface; the ground in the present bottom is getting harder and rather

wet, consequently more spare for sinking. I have suspended the adit end south

for the pre-cut, and have put the men to drive a short cross-cut from the adit

to the engine-shaft, for ventilation, &c. The surface operations are being car-

ried on with all speed.

WEST TANKERVILLE.—A. Waters, June 30: The new boiler for the pump

engine, at the Wood shaft, is to be delivered at Minsterley this week.

The California engine-shaft is down 13 fms. from surface; ground harder as we near

the lode, which we hope to find in the shaft during next week; re-set at 8s.

per fathom; the lode is 2 ft. wide, worth 4s. per fathom. To re-set No. 1, stop,

in the bottom of the adit, by three men, at 2s. per fathom; lode worth 3s. per

fathom; the lode here is also worth 3s. per fathom. The 9 to drive west of

shaft by six men, at 2s. 10s. per fathom; here we have a good deposit of tin, and

shall be able to say more about it in our next report, as we are at present cut-

ting through the lode, in order to ascertain its size and value.

To re-set No. 1, stop, in back of the 9, by four men, at 3s. per fathom; the lode is

worth 4s. per fathom. To re-set No. 2, stop, in back of the 9, by four men, at 3s. per

fathom; the lode here is also worth 4s. per fathom. The 11 to drive east of

shaft by two men, at 2s. 5s. per fathom; lode worth 3s. per fathom.

To re-set No. 3, stop, in back of the 11, by two men, at 2s. 5s. per fathom; lode

worth 3s. per fathom. To re-set No. 4, stop, in back of the 11, by two men, at 2s. 5s.

per fathom; lode worth 3s. per fathom. To re-set No. 5, stop, in back of the 11, by

two men, at 2s. 5s. per fathom; lode worth 3s. per fathom. To re-set No. 6, stop,

in back of the 11, by two men, at 2s. 5s. per fathom; lode worth 3s. per fathom.

To re-set No. 7, stop, in back of the 11, by two men, at 2s. 5s. per fathom; lode

worth 3s. per fathom. To re-set No. 8, stop, in back of the 11, by two men, at 2s. 5s.

per fathom; lode worth 3s. per fathom. To re-set No. 9, stop, in back of the 11, by

two men, at 2s. 5s. per fathom; lode worth 3s. per fathom. To re-set No. 10, stop,

in back of the 11, by two men, at 2s. 5s. per fathom; lode worth 3s. per fathom.

To re-set No. 11, stop, in back of the 11, by two men, at 2s. 5s. per fathom; lode

worth 3s. per fathom. To re-set No. 12, stop, in back of the 11, by two men, at 2s. 5s.

per fathom; lode worth 3s. per fathom. To re-set No. 13, stop, in back of the 11, by

the lode that is cut in the second cross-cut west at No. 3 level. No change in the cross-cut west in No. 5 level; this cross-cut is in 28 metres, and 16 metres inside the lode traversed.—Surface: The tramroad to shoot under No. 3 level is completed, and ore in the shoot. The tramroad from the bottom of this shoot, No. 4 level to floors, is in a working condition, and ore on the floors. From these floors we have made a sledges and about 112 metres long, over which we take the ore to commence with down to 12 metres under No. 5 level, where we have a large deposit finished to receive ore for the wire-ropes. We have already about 30 tons of ore in the deposit. Excavations for another deposit are made, and the walls will be pushed on with all speed.—P.S. Good stones of ore have just been brought down from Val Toppa Mine from a stone sinking near the entrance of No. 4 level, and shall report more fully on it next week.

[For remainder of Foreign Mines, see to-day's Supplement.]

THE MORRIS TESTIMONIAL.—We are glad to state that the amount subscribed to this fund is £12,75. 6d. With this amount 500,000 Great Indian Peninsula Guaranteed Stock has been purchased, and the balance will be handed to the Professor in a purse. The presentation will take place on Thursday, the 14th instant, at 5 P.M., at the apartments of the Geological Society. Sir Roderick I. Murchison will preside, and present the above, together with a mounted vellum recording the gift, &c.

VAN.—At the meeting, on Wednesday (Mr. Thomas Clement Mundey in the chair), the special resolution authorising the directors to issue 3000 new shares was unanimously confirmed. In the short space of 15 months, and in face of dressing machinery, &c., totally inadequate to the producing powers of the mine, the ore raised and sold has realised 50,000,000, while before many of the recent important discoveries were made, the reserves were estimated at a value exceeding 2,000,000,000 sterling. The progressive rate of increase is calculated at ten times the amount of ore at present being returned. Although stated upon a previous occasion, it would appear necessary from the numerous communications received, to re-state that the Van Mine was commenced about 11 years before the present company took possession; and during the last three years of that period 2220 tons of lead were produced, which realised 28,244. Since the present company commenced working the amount of cost-sheets paid has been 24,395, that is, to the end of May; and the ore sold, 3005 tons, has realised 49,642,—so that, in 15 months, the value of the produce from the mine has exceeded the amount paid for it by the present company. The dividends paid have amounted to 24,000. Of the 500 men now employed 200 are engaged upon tutwork—that is, in making discoveries. In February, 1869, the ore ground discovered was 50 fms. long and 15 fms. deep below adit; in June, 1870, it amounted to 140 fms. long and 45 fms. deep below adit. From the 15 to the 45—the present deepest point—the lode has gradually increased in value, yielding in the 45 (as far as seen, 5 ft., the lode itself being 5 to 6 fms. wide) fully 12 tons of lead ore per cubic fathom, or nearly double its value in the 30 fathom level. We append the last official communication from the manager:—

July 5.—In the 45 fathom level cross-cut we have cut into the main leader about 5 ft. The lode, as far as seen, will yield fully 12 tons of lead ore per cubic fathom. The water, although still very strong, is daily decreasing. No other change of any importance. All points throughout the mine look as cheering as ever. We have put six men to drive east from Edwards's shaft, in the soft, by the side of the lode, in order to communicate with the 15, from Van, as speedily as possible. The cross-cut north is still pushed on.—Sampling: As stated in my report, we shall sample on Monday next 350 tons, but after this month, when we shall have our new floors at work, I shall try to increase to 400 tons. We have suffered much through want of water for the last two months, but I am glad to say that it rains heavily here this afternoon.—W. WILLIAMS.

The new shares are already marketable at 157 per "fraction" (equal to 60 per share). Last Wednesday was the monthly inspection day, when Captain Paull (or Goginan), with other agents of position, inspected the mine, and the reports submitted more than confirm the statements put forth by the respected manager. The lode in the 45 is being cut into an almost solid course of ore.

VAN CONSOLS.—The recent discovery of lead in the 30 fm. level in this mine is regarded by competent judges as a forerunner of a large course of lead ore. The London executive have lately visited the mine, also several of the larger shareholders, and complete satisfaction has been expressed by all as to the manner in which the works are being carried out by Captain Corfield. The now extensive plant is in first-rate working order. The underground operations will henceforth be regarded with the utmost interest. The Van lode traverse this mine for about a mile, the lead-producing part of the lode being of the same character and the stratification identical with the Van Mine, and the lead is coming in about the same depth as in the latter mine. Captain Corfield reports that the new shaft in the much-prized eastern ground is progressing favourably; and the fact of stones of lead having been met with in this shaft within the last few feet of sinking fully justifies the high opinion entertained of this part of the mine.

GREAT VOR.—A considerable and important improvement has taken place during the last week, fully bearing out what was indicated by Mr. Noakes, F.G.S., the Chairman at the recent general meeting. The whole of the ground now between Ivey's and Edwards' shafts shows evidence of a rich run of ore. In the 204, west of Ivey's shaft, the lode is 2 feet wide, and was worth over 1000 per fathom when first taken down, and has since improved. The produce of the sample showed it to be 10 cwt. 2 qrs. per ton of stuff, being more than half tin. The agent affirms it to be the richest lode he ever saw.

PERRAN WHEAL VIVYAN SILVER-LEAD MINE.—A meeting of the proprietors of this mine will be held shortly, for the purpose of taking into consideration the advisability of introducing it to the public as a limited liability company. The operations up to the present time have been carried on by some half-dozen gentlemen, who have expended considerable amount in opening on the different lodes, and proving their value by sinking shafts and driving adit levels. From the greatly improved appearance of two of the lodes (rich stones of silver-lead having been broken from each) it is deemed advisable to work the mine on a more extended scale. Amongst others, Mr. Josiah J. Hitchins (consulting engineer of the Devon Great Consols) has lately visited the mine, and thoroughly examined it; and expressed himself pleased with the prospect of speedily meeting with large deposits of silver-lead. It is believed that No. 1 lode, in this mine, is the same as that now being worked to so much profit in the West Chiverton Mine, the whole character of the lode, with the lead broken, being of the same description.

EAST WHEAL LOVELL (from a Correspondent).—Notwithstanding the said-to-be-disinterested reports of two agents, not published in the local papers, and read at the meeting on Monday, neither of them do, nor indeed can, contradict the fact that stopping has been, and is still being, carried on from the bottom level, where the water is being kept by means of a hand-pump. The shareholders are not told even by the manager that the shaft has not been sunk for the last six months; the only sinking that has been made is the "hole" alluded to (and a very proper word for it), which is in the very heart of the bunch. Surely the more practical way would be to sink either the shaft or winze—and why was not this done? Why, I ask, is not the mine worked in a miner-like way, and not pursue the present plan? In truth, it is being worked as a tribute pitch, and in such a way as no miner having regard to the permanence of his mine would allow a pair of tributes to work a 13s. 4d. pitch. I am neither a "bull" nor a "bear," but only wish to see the mine developed in a miner-like manner. I challenge all the inspectors that have ever seen it to say it is so conducted. Suppose the lode falls off in the bottom of the winze or shaft, what reserves have they to fall back on for dividends, or even to pay cost?

MINING IN MEXICO.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—The last advice, in French mail of to-day, from Real del Monte state that the Gauitzmotzin Mine is producing 3000 cargas a week; 7 cargas make up 1 ton, equal, therefore, to 428 tons per week, or 1712 tons per month of ore, averaging from 60 to 70 ozs. per ton, or equal to 119,840 ozs. silver per month, and in the year 1,428,080 ozs. silver. The percentage of the ore is also rising considerably, and the profit for the quarter ending June will be \$150,000, or 30,000, or 12,000, for the year. This proves what Mexican mines are capable of doing. The profits for the next year will be double the above amount. Here is another proof that Mexican mining companies flourish, when properly managed by competent and intelligent persons. Like Gauitzmotzin, you have many mines in Mexico not known to the English public in general, as they are mostly worked by native companies, and these keep up the constant supply of bullion to the English market.

I am confident, as I have stated to you for the last two years, that few English mining companies in Mexico would do wonders, provided competent persons are placed in management, and especially conversant with metallurgical knowledge, which is most essential in the conducting of Mexican mining companies. H. SEWELL.

Bromfield-street, Upper Westbourne-terrace, W.

[For remainder of Original Correspondence see this day's Supplement.]

* * * With this week's Journal a SUPPLEMENTAL SHEET is given, which contains: Government Mines Inspectors' Reports for 1869—Visit of the Members of the South Staffordshire and East Worcestershire Institute of Mining and Mechanical Engineers to the Coal and Iron Districts of Belgium—Iron and Steel in the United States—Siegena Sulphur Company Meeting—Foreign Mining and Metallurgy—Foreign Mines Reports—Awards of the Councils of Royal School of Mines and the Institution of Civil Engineers—Ancient and Modern Mining in Shropshire—Patent Matters—Original Correspondence: Coal-Cutting Machinery (J. Rothery); Road Locomotion of the Future (J. W. Thomas); Eberhardt and Aurora Mining Company (T. F. Haggard); Metals and their Ores (E. Gledhill), &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, JULY 9, 1870.

COPPER.		IRON.		Per ton.	
Tough selected...p. ton	75	0	0	—	
Tough cake and tile	73	0	0	—	
Sheathing & sheets	76	0	0	78	0
Bolts	77	0	0	—	
Bottoms	78	0	0	—	
Old	69	0	0	70	0
Burra Burra	74	0	0	—	
Wire...per lb.	0	0	10	—	
Tubes	0	0	11	—	
BRASS.		Per lb.		Per ton.	
Sheets.....per lb.	81/4d.			6	0
Wire	71/4d.			5	0
Tubes	10d.	11d.		—	
Yellow Metal Sheath-p. lb.	61/4d.	63/4d.		—	
Sheets.....	61/4d.	63/4d.		—	
SPELTER.		Per ton.		Per ton.	
Foreign on the spot	£18	15	0	10	0
" to arrive ..	19	0	0	—	
ZINC.		Per ton.		Per ton.	
It sheets.....	£23	10	0	—	
QUICKSILVER (p. bottle)	7	17	0	—	
TIN.		Per ton.		Per ton.	
English blocks ..	£135	0	0	137	0
Do., bars (in brls.)	136	0	0	138	0
Do., refined.....	141	0	0	—	
Barca.....	132	0	0	133	0
Strata.....	131	0	0	131	10
TIN-PLATES.		Per box.		Per ton.	
IC Charcoal, 1st qua.	1	6	6	1	8
IX Ditto, 1st quality	1	12	6	1	12
IX Ditto, 2d quality	1	6	0	1	6
IX Ditto, 2d quality	1	12	0	1	12
IX Coke.....	1	3	0	1	3
IX Ditto	1	9	0	1	9
Canada plates, p. ton.	12	10	0	14	10
Do., at works	13	0	0	14	0
At the works, 1s. to 1s. 6d. per box less.					
LEAD.		Per ton.		Per ton.	
English Pig, com...	18	0	0	18	5
Do., LB.....	18	0	0	18	5
Do., WB.....	19	0	0	19	5
Ditto, sheet.....	18	10	0	—	
Ditto, red lead	20	0	0	20	10
Ditto, white	27	0	0	30	0
Ditto, patent shot	21	0	0	—	
Spanish.....	17	10	0	17	15
At the works, 1s. to 1s. 6d. per box less.					
STEEL.		Per ton.		Per ton.	
Swed., in kegs (rolled)	13	10	0	13	15
" (hammered)	14	5	0	14	10
Ditto, in faggots	15	10	0	—	
English, spring	17	0	0	23	0
TIN.		Per ton.		Per ton.	
English blocks ..	£135	0	0	137	0
Do., in brls. (in brls.)	136	0	0	138	0
Do., refined.....	141	0	0	—	
Barca.....	132	0	0	133	0
Strata.....	131	0	0	131	10
TIN-PLATES.		Per box.		Per ton.	
IC Charcoal, 1st qua.	1	6	6	1	8
IX Ditto, 1st quality	1	12	6	1	12
IX Ditto, 2d quality	1	6	0	1	6
IX Ditto, 2d quality	1	12	0	1	12
IX Coke.....	1	3	0	1	3
IX Ditto	1	9	0	1	9
Canada plates, p. ton.	12	10	0	14	10
Do., at works	13	0	0	14	0
At the works, 1s. to 1s. 6d. per box less.					
REMARKS.		The transactions reported this week are extremely limited, and the general state of our market remains without indications of improvement. Prices, in some instances, are a shade easier than previously quoted. In the absence of orders, or more promising advices, buyers seem more disposed to contract than extend their operations, and, as the present time certainly offers little or no prospect of a speedy favourable change, it is not unlikely there may be a dull market for the next few weeks.		The transactions reported this week are extremely limited, and the general state of our market remains without indications of improvement. Prices, in some instances, are a shade easier than previously quoted. In the absence of orders, or more promising advices, buyers seem more disposed to contract than extend their operations, and, as the present time certainly offers little or no prospect of a speedy favourable change, it is not unlikely there may be a dull market for the next few weeks.	
The market for Mining Shares on the Stock Exchange has not fluctuated to a very material extent during the week. There have been several favourable changes, and a few adverse. Great Wheal Vor shares have advanced considerably, and Van, Devon Great Consols, and Great Laxey remain firm, at former prices. Van Consols, Ashton, Tan-yr-Aill, and Frontino have been flat. The news from Pacific is still very good, and Capt. Brown is sanguine of shortly cutting an important lode in the 550 feet level. There is enough, however, already discovered to render Lander Hill a most valuable mine, and should a fresh lode be cut in the 550 feet level, this mine would become one of the richest, if not the richest, in that district. A special settlement in Sweetland Creek shares will take place on Monday next, when they will be officially marked. Van still looks exceedingly well, but there is nothing special to report, except that further progress has been made in cutting into the lode in the 45 fm. level, which is worth over 12 tons per fathom, and the lode stuff is described as being composed of rich mixture which all miners like to see—crystals of spar, greenstone, peach, and the forebreast nearly solid lead. Other parts of the mine richer than ever, continuing to open up in reserves more than ten times in excess of the present returns. Ashton, 6 to 12; Tan-yr-Aill, 3 to 4; Van Consols, 3 to 3 1/2; Tankerville, 17 to 17 1/2; West Stiperstones, 4 to 1; Caegwyn, 1 1/2 to 2 1/2; Chiverton Moor, 4 to 4 1/2; Devon Consols, 95 to 97; East Cadron, 5 to 5 1/2; West Cadron, 2 to 1; East Lovell, 36 to 37; Laxey, 18 to 18 1/2; Vor, 11 to 11 1/2; Marke Valley, 7 to 7 1/2; Prince of Wales, 14s. to 16s.; Van, 78 to 80; West Chiverton, 53 1/2 to 54 1/2; Almada, par to 1 prem.; Anglo-Argentine, 1-16 dis. to 1-16 prem.; Anglo-Brazilian, 2 to 2 1/2 dis.; General Brazilian, par to 1 prem.; Cape Copper, 10 1/2 to 10 1/2; Capula, 1 1/2 to					

quality of metal and flux are found in the immediate locality of the colliery, so that smelting operations could be most successfully carried on. The capital is 100,000*l.*, in shares of 5*l.* each, and it is estimated that upon this amount a dividend at the rate of 30 per cent. per annum may be anticipated. The direction consists of gentlemen practically connected with the business which it is proposed to establish. The directors consist of Mr. E. Brydges Willyams, M.P., Chairman; Admiral W. King Hall, C.B.; and Messrs. Edward Gotto, C.E.; C. A. Booth, J. Hopkinson, and N. Plant, F.R.G.S., F.G.S. The agents are Messrs. John Bramley-Moore and Co., Liverpool; Messrs. John Moore and Co., Rio de Janeiro.

The BRYNAMBOR LEAD MINE COMPANY, with a capital of 20,000*l.*, in shares of 1*l.* each, has been formed for developing the mine of the same name, in Cardiganshire, the seat being held at a royalty of 1*l*-14*l*, and situated near the great Nant-y-Mwyn Mine, which has already sold ore to the extent of about 3,000,000*t.*, and paid 750,000*l.* in dividends. The company will commence work immediately upon entering into possession, the machinery having already been erected in the most complete manner, and at very great outlay, but not started. The work done includes principal shaft sunk to a depth of 20 fathoms, and provided with ladders, pumps, water-wheels, winding, crushing, and dressing machinery. Levels have been driven (including a very long adit level of 90 fms.), from which, before the machinery above referred to was erected, about 20 tons of lead ore has been raised and sold; whilst good and profitable courses of ore are now standing, and available during the sinking of the main shaft and the driving of fresh levels, on which work can be commenced immediately upon taking possession. Comparing the quantity of ground broken with the quantity of ore raised, and looking to the reports of those who have inspected the property and speak so highly of it, the directors have the fullest confidence that the mine will be at once worked at a large profit. To bring about this result will require a very small outlay of either time or money, having regard to the extent of the productive work which has already been done, and to the capital for the erection and completion of machinery, water-courses, &c., which has already been expended. The property has been inspected and most favourably reported on by the late Captain M. Francis, Mr. Edward Williams, Capt. C. W. Ramsden, and others. The only drawback to the mine when before worked was the expense of carriage, the mine being 30 miles from Aberystwith, and very inaccessible; but the construction of a railway has removed this difficulty, direct access having been given from the mines to the great smelting works of South Wales.

At Redruth Ticketing, on Thursday, 1506 tons of copper ore were sold, realising 7651*l.*, 11*s.* 6*d.* The particulars of the sale were—Average standard, 97*l.*; average produce, 8*l*; average price per ton, 5*l*. 1*s.* 6*d.* quantity of fine copper, 121 tons 12 cwt. The following are the particulars of the sales during the past month:—

Date. Tons. Standard. Produce. Per ton. Per unit. Ore copper. June 2.. 3292 ... £96 19 0 ... 67 ... £23 17 6 ... 11s. 4d. ... £56 13 0 23.. 4066 ... 99 12 0 ... 63 ... 3 18 6 ... 11 84 ... 58 11 0 July 7.. 1506 ... 97 0 0 ... 83 ... 5 1 6 ... 12 7 ... 62 18 6

Compared with the last sale, the advance has been in the standard 3*s.*, and in the price per ton of ore about 5*s.*

The following dividends were declared during June:—

Mines.	Per share.	Amount.
Great Laxey	£0 10 0	£7,500 0 0
Van	0 10 0	6,000 0 0
Dolcoath	3 10 0	5,012 0 6
Provident	1 10 0	1,680 0 0
West Wheal Seton	3 10 0	1,400 0 0
Foxdale	0 10 0	1,400 0 0
Great Wheal Vor	0 3 6	1,033 18 0
North Crofty	0 2 6	701 5 0
Wheal Mary Ann	0 10 0	512 0 0
Gunnislake (Clitters)	0 1 0	512 0 0
South Frances	1 0 0	496 10 0
South Wheal Crofty	0 10 0	468 10 0
Pearne Moor	1 0 0	242 0 0
Cwm Erin	0 5 0	216 15 0
Total	£27,164 8 0	

At East Wheal Lovell meeting, on Monday, the accounts showed a credit balance of 427*l.*, 14*s.* 5*d.* A dividend of 38*s.* (2*s.* per share) was declared. Details in another column.

At the Cwm Erin Mine half-yearly meeting, on June 17, a further dividend of 5*s.* per share was declared, and made payable on July 6.

At Wheal Agar meeting, yesterday, the accounts showed a credit balance of 267*l.*, after charging every liability. A call of 1*s.* per share was made. The prospects of the mine, as reported, are of a most satisfactory character. The lode in the shaft continues worth 70*s.* per fathom. The 130 and 140 fm. levels are opening up large reserves, also the 15- and 170 fm. levels, on the south and East Pool lode, where the latter is very large and productive, and will open up great reserves.

At West Caradon Mine meeting, yesterday (Mr. Henry Milford in the chair), a call of 2*s.* 6*d.* per share was made.

At Wheal Uny meeting, on Monday, the accounts showed a profit on the three months' working, 574*l.* 18*s.* 7*d.*, and a balance against the mine, 7*s.* 10*d.*

At New Trumpet and Lovell United Mines meeting, held on Monday, it was resolved that the mine be divided into 2000 shares, and be conducted on the Cost-book System, as recognised by the Stannary Court, and incorporating therewith the Stannaries Act, 1869. Mr. Henry Rogers, of Helston, was appointed parser of the mine, at a salary of five guineas per month. Captain Richard Quenell, managing agent, and Mr. Thomas Quenell, clerk, at a joint salary of five guineas per month. Dr. H. W. Borlase was appointed surgeon of the mine. A call of 1*s.* per share was made.

At the Mining Company of Ireland meeting in Dublin, on Thursday (Sir Robert Kane in the chair), it was reported that the quantity of copper ore raised at the Knockmahan Mines, county Waterford, during the half-year was 2110 tons, as compared with 2108 tons in the previous six months. The quantity sold was 2215 tons. Notwithstanding the depression prevailing in the copper market during the half-year, the operations at this establishment for the six months show a profit of 87*l.* 0*s.* 11*d.*, as compared with a loss in the preceding half-year. The output of coal and culm at the Silevardagh Collieries, county Tipperary, during the half-year was 23,455 tons, and the sales were 20,739 tons. In the corresponding period of 1869 the output was 24,604 tons, and the sales 22,067 tons. The profit realised was 2596*l.* 11*s.* 10*d.* At the Dubhallow Collieries, county Cork, the output of coal and culm was 3724 tons, and the sales were 3839 tons. In the corresponding period of 1869 the output was 3515 tons, and the sales 4443 tons. The profit on the half-year's workings, 1941, 16*s.*, has been carried, as usual, to the credit of the "new fittings" account, leaving the balance of 1359*l.* 19*s.* 3*d.* now standing to the debt of that account. The quantity of lead ore raised at the Lugarane Mines, county Wicklow, was 759 tons, as compared with 899 tons in the previous half-year. The deliveries to the Ballycorus Smelting Works amounted to 764 tons, of which the value was 778*l.* 19*s.* 9*d.* The profits at these mines for the past six months was 2174*l.* 16*s.* 5*d.* A sum of 65*l.* 17*s.* 4*d.* has been expended in works of a permanent character, of which 65*l.* 13*s.* 10*d.* has been charged to the debit of the profit and loss, and the balance, amounting to the sum of 1277*l.* 3*s.* 6*d.*, being the additional expenditure on the new incline railroad at Van Diemens, has been placed, as before, to the credit of the capital account, to be written off at the rate of 10 per cent. per half-year. At the Ballycorus Works, county Dublin, the profit on operations during the half-year was 182*l.* 6*s.* 3*d.* The directors recommended that a dividend at the rate of 8 per cent. per annum, free of income tax, be declared on the transactions of the half-year. The accounts for the half-year ended May 31 showed a net balance to the credit of profit and loss of 2167*l.* 14*s.*

At the Taquaril Gold Mining Company meeting, yesterday (Mr. Henry Haymen in the chair), the report of the directors was received and adopted. Details in another column.

The Bank of England return for the week ending on Wednesday evening showed in the ISSUE DEPARTMENT a decrease in the "notes issued" of 410,820*l.*, which is represented by a corresponding decrease in the "coin and bullion" on the other side of the account. In the BANKING DEPARTMENT there was an increase in the "other deposits" of 3,148,146*l.*; in the "seven day and other bills" of 40,280*l.*; and in the "rest" of 186,301*l.* together, 3,374,727*l.*; and a decrease in the "public deposits" of 6,597,240*l.*; 8,222,522*l.* On the asset side there was a decrease in the "public securities" of 528,841*l.*, and in the other securities" of 1,540,334*l.*; 2,069,175*l.* leaving a total decrease in the reserve of 1,183,847*l.*

A change has taken place in the firm of R. and W. Hawthorn, established over a period of half a century in Newcastle-upon-Tyne, as the Forth Banks Engine Works, as locomotive, marine, stationary engineers, &c. Mr. W. Hawthorn, who has been the proprietor since the death of his brother, retires, and transfers the premises to Mr. B. C. Browne, C.E.; Mr. F. C. Marshall (late of the engine department of Palmers' Shipbuilding and Iron Company); Mr. W. Hawthorn, jun.; and Mr. Joseph Scott (long connected with the works), who in future will conduct the business under the same style (R. and W. Hawthorn) as heretofore.

The Stock Exchange Committee have appointed Monday next a special settling day in the shares of the Sweetland Creek Gold Mines (Limited) and Colorado Terrible Lode Mining Company (Limited), which are to be marked.

"HOW TO INVEST, AND WHAT TO SELECT."—Mr. E. J. Bartlett has found it necessary to issue a sixth edition of his interesting work, in which a great deal of new matter is introduced. The book should be perused by intending investors.

THE LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending July 3 was 11,619*l.* 19*s.* 9*d.*

THE MINING JOURNAL.

TO COLLIER OWNERS.

THE TALARGOCH MINING COMPANY (LIMITED) invite TENDERS for the SUPPLY of ONE HUNDRED TONS of COAL per week for twelve months, from the 1st of August next. Tenders, stating price per ton, delivered either at Prestatyn or Meidien Station, including wagon hire, to be addressed to the Directors at the Mine by Wednesday, the 20th of July.

The Directors do not bind themselves to accept the lowest or any tender.

Further particulars, if required, by applying to Mr. WM. SMITH, Talargoche Mine, near Rhyl.—June 28, 1870.

TO CONTRACTORS, AND OTHERS.

TENDERS are INVITED by the BELSTONE MINING COMPANY (LIMITED) for the CONSTRUCTION of a LEAT, about 94 chains in length.

Parties wishing to contract for the same can be shown over the ground by WILLIAM MILLMAN, Carpenter, Okehampton, Devon.

Tenders, addressed to the undersigned, are to be sent in on or before Monday, the 18th day of July instant.

The company do not bind themselves to accept the lowest or any tender.

By Order, FRAS. R. REEVES, Secretary.

2, Royal Exchange-buildings, London, July 7, 1870.

Contracts for Mine Materials.

For WHEAL MARY HUTCHINGS UNITED Mines, PLYMPTON, DEVON.

TENDERS are INVITED for the SUPPLY of MATERIALS

as follows:—

COALS, CANDLES, TALLOW, ANTI-FRICTION GREASE, OIL, IRON, STEEL, STAMP HEADS, NAILS, POWDER, TIMBER, &c.

For particulars, apply to the manager, Capt. WILLIAM EDWARDS, Ridgeway, Plympton, on or before the 20th inst.

Ridgeway, July 4, 1870.

PARTNERSHIP—COAL TRADE.

A COLLIER OWNER, extending his operations, DESIRES a PARTNER to CO-OPERATE with HIM. Twenty Per Cent. profits, and Five Per Cent. guaranteed during development.

Apply to JOSEPH SIMPSON and Co., Public Accountants, 2, Cowper's-court, Cornhill, E.C.

TO CAPITALISTS.

THE OWNER of a LARGE and PRODUCTIVE COLLIERY, in the neighbourhood of Cardiff, is WILLING to DISPOSE of ONE-HALF SHARE on terms exceptionally advantageous.

For particulars, apply to Mr. J. G. T. CHILD, Manchester; or to CHILD, HORNEY, and Co., 27, Lombard-street, London.

WANTED.

WANTED, a SITUATION by a Young Man who has been UNDERRGROUNDED and SURFACE SUB-MANAGER of an IRON ORE MINE. Good testimonials from last employers.

Address, "J. H.," Gresford Villa, Freehold-street, Fairfield, Liverpool.

WANTED TO PURCHASE, a PAIR of CONNECTED HORIZONTAL ENGINES, with WINDING APPARATUS for round wire rope, from 60 to 80 horse power. Must be in excellent condition.

Also, a PAIR of PIT FRAMES, of best modern construction; pulleys not to be less than 10 ft. diameter.

Also, TWENTY-FIVE TONS of T RAILS, of best make, from 30 to 40 lbs. weight per yard.

With full particulars, and prices, apply to "B. Z." Post Office, Dudley, Worcestershire.

PHOSPHATE OF LIME.

WANTED, to WORK, either from a MINERAL FIELD at home or abroad, or PURCHASE in quantity, ready for shipment.

Address, "M. M. B.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

A VIS.—UNE PERSONNE SERIEUSE, très au courant des affaires commerciales et des voyages, DESIRE REPRESENTER EN FRANCE, soit en titre ou à la commission, une USINE IMPORTANTE.

S'adresser à M. CHARLES SCHWARTZ, négociant, à Nancy, 24, Rue de Malzéville, France.

NOTICE.—A RELIABLE PERSON, of great experience in commercial business and travelling, DESIRE TO REPRESENT IN FRANCE, either on his own account, or on commission, a LARGE IRON WORKS.

Apply to Mr. CHARLES SCHWARTZ, merchant, 24, Rue de Malzéville, Nancy, France.

SOUTH AMERICA.

A N INTEREST in a VALUABLE and EXTENSIVE MINING PROPERTY FOR SALE, to which a railway is now being completed.

For particulars, address "G. and R.," care of Mr. B. Fothergill, C.E., 15, George-street, Mansion House, London.

A N ENGLISH MINING ENGINEER of EXPERIENCE, who is about to proceed to the United States and Canada, is OPEN to ACCEPT ENGAGEMENTS for the INSPECTION and SURVEY of MINERAL PROPERTIES in those DISTRICTS.

Address, "E. G. S.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

COPPER SLAGS, not crushed (about 50 tons) FOR SALE, lying at—MR. A. BATELOR'S, DEVONSHIRE GROVE, OLD KENT ROAD, LONDON.

NEW TRELEIGH MINE.—FOR SALE, about FIFTY TONS of ARSENICAL MUNDIC, which contains both Tin and Copper.

New Treleigh Mine, July 6, 1870. SAMUEL MICHELL.

POLISHING POWDER.

A CONSIDERABLE QUANTITY of PULVERISED MAGNETIC ORE, for CLEANING BRASS, STEEL, COPPER, PEWTER, &c., TO BE SOLD, BY PRIVATE CONTRACT.

Samples, prices, and testimonials will be sent, carriage paid, on application to Mr. SCOTT, Dolgelly; or to Mr. OWEN REES, Stationer, &c., Dolgelly.

MINERALS.

THE MINERAL AGENCY COMPANY is in a POSITION to PURCHASE and DISPOSE of MINERALS, of every description.

Apply to J. NEWTON, Manager, 1A, St. Helen's-place, Bishopsgate-street, London, E.C.

CARBONATE OF BARYTES.

FOR SALE, at BLAGILL MINE, near ALSTON, a considerable QUANTITY OF BARYTES, ready for delivery.

For particulars, apply to Mr. CRAWHALL, Alston, Cumberland.

MINING SETTS IN DEVON.

TIN, COPPER, AND LEAD, in the Manor of SHEEPSTOR, and LANDS in TAVISTOCK, WHITCHURCH, PETER TAVY, LAMERTON, and LIDFORD. Water power. Terms, 21 years, renewable. Dues, 1*s.* 10*d.* to 1*s.* 1*d.* for Copper and Lead, reduced to 1*s.*

NOTICES TO CORRESPONDENTS.

** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accurate and useful work of reference.

PRINCE OF WALES.—In your valuable Journal, of June 25, a correspondent complains of lack of energy in the management of this mine. If the writer had honesty enough to attach his name to his letter we should be better enabled to judge whether it was from his personal knowledge of the property, or from prejudice against the agents.—J. and W. GIFFORD.

WHEAL TREVENNA.—Can any of your correspondents inform a distant shareholder what is the present condition of this concern, and is it likely soon to come to the same conclusion as its rich neighbour, South Trevenna?—A SHAREHOLDER: Dublin.

CHENVER AND WHEAL ABRAHAM.—In reply to "T. W." (Cherler) it may be stated that Messrs. Wilson and Cather (of Cannon-street, E.C.) were the liquidators of the old company, who will, no doubt, afford every information in respect of the winding-up. The present company obtained their title to the property, through the Stannary Court, by public auction.

SIGENA SULPHUR COMPANY.—The address of Mr. Emil Bergmann, whose name was signed to the article published in last week's *Mining Journal*, referring to the Sigena Sulphur Company of Westphalia, should have been printed "Lombard Exchange, E.C."

NORTH CORNWALL KAOLIN COMPANY (LIMITED).—Letters for information should be addressed to Mr. Fred. Nevill, the Secretary, No. 17, Ashley-terrace, North-road, Plymouth.

SHARE DEALING.—We never interfere in the sale or purchase of shares; neither do we recommend any particular name for investment or speculation, or broker through whom business should be transacted. The addresses of most of the latter appear in our advertising columns.

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, JULY 9, 1870.

COAL FOR THE ADMIRALTY.

The changes which have recently taken place in the mode of purchasing coal for the Admiralty has, according to the statement made in the House of Commons by the Secretary of the Admiralty, resulted in a net saving to the country of 17,501L 14s. 3d., after paying 1695L to the new coal buyer, as commission for assisting in purchasing, for viewing cargoes in South Wales and the North of England, and for inspecting and reporting upon the coaling arrangements, not only at all the dockyards, but at Portland, Milford Haven, and other places where there are depots, some of which arrangements were found to be very defective. Now, inasmuch as, according to the same authority, the quantity of coal purchased in the year was 188,888 tons, and as coal has certainly not been declining in value, it follows that upwards of 2s. per ton too much had previously been paid. Now, it is urged that the work required in ordering coal is so simple that it could readily be performed by a clerk, which, taken literally, is true, but the ordering of coal is an unimportant part of the coal-buyer's duty—his chief business being to effect the purchases at the lowest possible price, and to see that the coal delivered is equal to that which has been contracted for. It is the system of leaving the business to clerks that of purchasing through a buyer is intended to replace, it having been found that, owing to the difficulty of fixing the responsibility under the former system, inferior qualities of coal were sent in with impunity, much to the inconvenience and annoyance of those compelled to use it.

Regarded from a purely practical and business point of view, the payment of 2000L a year salary to a servant whose labours add 20,000L a year to one's profits can scarcely be regarded as a commercial absurdity—at least, so far as the employer is concerned—whilst the arguments brought forward against it are most illogical. It is stated that land beneath which the Barnsley Thick coal exists is worth 300L per acre, and contains 12,154 tons of coal, therefore 3d. per ton commission is too high to pay the Admiralty coal-buyer. Of course, the conclusion may be correct, but the connection of the conclusion with the premises certainly does not appear to be quite obvious. The price per acre of coal lands has no more to do with coalbrokers' commission than the acreage of the Sandwich Islands has in governing the price of the English funds; and to urge that because a colliery proprietor pays 6d. per ton royalty there is nothing to justify giving 3d. per ton commission to a broker is at least a mistake. Commission is usually calculated upon the market price at which the business is done, so that if it were justifiable to argue that because the royalty, which is defined (though upon what principle it is difficult to comprehend) to mean the "original cost" of the coal, is 6d. per ton the broker's commission should be less than 3d. per ton, it would be equally justifiable to argue that because the royalty is 6d. per ton the consumer should not be charged more than 1s. 6d. per ton, for surely 200 per cent. upon the "original cost" should leave an ample margin to the colliery proprietor. But in truth such arguments are altogether fallacious, and we can only revert to the fact that upwards of 17,000L net saving has, through the appointment of the Admiralty coal-buyer, been effected in the purchase of considerably less than 200,000 tons of coal. But the change is as advantageous to the colliery proprietors as a body as it is to the country, so that the opposition to it is the more difficult to comprehend. It has ever been urged that under the old system it was practically impossible to secure orders for coal upon its merits, and that, hence, considerable disadvantage resulted to all except the favoured few. Under the new system such complaints cannot be made. The Admiralty coal-buyer's position is practically dependent upon the economy he effects, and it cannot be supposed that no consideration would be taken of the quality of the coal in estimating the saving effected. It is obviously to the coal-buyer's interest to obtain the best coal at the lowest possible price; those, consequently, who are in a position to sell a good coal cheaply have great cause to congratulate themselves upon the alteration that has been made. The question of the relative merits of North Country and Welsh steam coal will again be raised this time, it may be hoped to be settled upon the consideration of merit alone. A very excellent article upon the subject has just been published in the *Cardiff Times*, in which it is observed that thirty years ago the coal fields of Northumberland held every market where English coal was in demand for steam consumption. Its qualities were understood, stokers were induced to its requirements, and both dealers and consumers favoured it as a coal which was known, and the only one known, to be, on the whole, best adapted for steam purposes. It was at the time when steam was beginning to mark an era in civilisation by its gigantic development that a coal was discovered which possessed properties in combination, which existed in like degree in no other coal then or since found in any part of the world.

The difficulties which Welsh coal had to contend with upon its first introduction were enormous, for it had to make its way in an already occupied market, but it was found that the use of Welsh coal increased considerably the practical power of the engine, allowed the fires to be kept up for days instead of hours without fouling the tubes of the boiler, released the stoker from more than half his accustomed attention, and acquitted him of the most arduous part of his labour, left a minimum of ash and clinker, and emitted from the fire instead of volumes of black smoke a scarcely perceptible light vapour, subsiding when the fires were well lighted to an invisible haze. The pioneers of the Welsh coal trade wisely judged that it was easier to overcome foreign than English prejudice in favour of anything which had the stamp of time and custom, and the first victory over North Country coal was obtained in France. The sugar refiners of Nantes, and afterwards the Imperial navy, were compelled to allow its superiority, and immediately became consumers. Inch by inch the ground was contested by its powerful northern rival, but inch by inch that rival was beaten off the field, so that, in 1860, even the *Newcastle Chronicle* asserted that—in the quantity of water evaporated there is a considerable difference in favour of the Welsh coal, the power of evaporation being 20-30% better than our Newcastle coal. In other words, 4 tons of Welsh steam coal, according to the experiments of Messrs. Atherton and Taplin, will do the same amount of work as 5 tons of Newcastle steam coal. The Welsh coal makes more ash than ours does, but ours clinkers more than it does. The furnace door ventilation is reported to cause a gain of 4 per cent. in economy, and a reduced boiler efficiency

of 3 per cent. with the Newcastle coals, while the same causes a loss of 8 per cent. in economy, and 15 per cent. in efficiency with the Welsh coals. The general results of these experiments, we regret to say, is favourable to the Welsh steam coals, and adverse to our Newcastle coals.

The North Country coal proprietors, naturally anxious to retrieve their lost position, availed themselves of the first opportunity to secure the reversal of a decision so prejudicial to their interests. At the close of the Russian war, during which the demand for the Welsh coal had exceeded the facilities for its careful supply, some complaints as to quality were made, and the North Country coal proprietors took the opportunity of obtaining an enquiry into the relative merits of the coals of the two districts. The South Wales coal proprietors showed themselves equally ready to court the enquiry, but they urged upon the Government that the conditions of the experiments should conform as much as possible to those in practice, and should take place on board a steamer fitted with the ordinary multi-tubular boiler in use in Her Majesty's navy. These propositions not being agreed to by the Newcastle colliery proprietors, the new trials were not undertaken by the Admiralty. But the Newcastle colliery proprietors commenced a series of experiments in their own way, which were witnessed by two Commissioners from the Admiralty, one of whom subsequently reported that the trials had been made in a boiler "made especially for experimental trials of a peculiar coal," and which "favoured in a remarkable manner the combustion of bituminous coal." Under these circumstances, the Welsh colliery proprietors determined to conduct a series of experiments themselves on board the Isabella Croll screw steamer, in the Bute Docks, Cardiff. These experiments were witnessed by Messrs. Taplin and Lynn, two engineer officers, sent for the purpose by the Board of Admiralty. The boiler was certified to be a fair type of the marine boilers in general use, and the Newcastle coal employed was of the best description, known as Hartley coal, and carefully screened before submitting it to the test. The Welsh coal employed was taken from eleven different properties. The results of these experiments confirmed in a remarkable manner the results obtained by Sir HENRY DE LA BECHE and Dr. LYON PLAYFAIR—the difference in favour of the Welsh coal being from 31 to 31 per cent.

The next suggestion from the North Country coal owners was that a mixture of the two coals might obtain results of equal, if not superior, value to that of the Welsh alone. The idea, as the *Cardiff Times* remarks—

Did not appear a very promising one, for the qualities of the two coals were essentially diverse, and supposing that they did not require different treatment, which they did at first view the mixture of a bad coal with a good would seem necessarily to result less in improving the bad than in deteriorating the good. The treatment required however, is essentially diverse. The Northern being a bituminous coal, in order that it may be consumed with the least evolution of smoke, requires the employment of perforated furnace-door. The Welsh, which is a smokeless coal, needs no such appliance, and is, in fact, deteriorated to the extent of 12 per cent. in its evaporative power by the use of such doors; here therefore, at once are two horns of a dilemma. The Welsh coal is purchased at a high price, in consequence of its economy in consumption. The Northern coal would remove its chief disqualification by the use of perforated doors; but the use of perforated doors diminishes the economic value of the Welsh, and the mixture of the Northern coal makes the smokeless coal to lose that property. In two respects, therefore, the high-priced coal loses its special recommendation, and the inferior coal gains little by the injury it has inflicted upon its associate; at the same time, the stokers must be careful to mix the two coals in the proportion which may have been prescribed to them as best for the inferior coal. They must, also, stoke frequently enough to suit the character of the Northern coal, and check themselves in doing so from injuring the Welsh coal, which is best left alone.

COAL IN JAPAN.

Coal has long held a conspicuous place among the mineral products of Japan, but for steaming purposes its inferiority to English coal has been in many respects so marked that very little reliance could be placed on it for naval use. Recently, however, a new Japanese coal has been discovered in the Takasima Colliery, at Nagasaki, which, from reports before us, seems to be equal, if not superior, to the Welsh coal which we have been hitherto accustomed to store in Eastern depots, at such immense cost, for the use of our steam navigation. How far this Takasima coal will eventually supersede English exported coal in Chinese waters it would be impossible to say, until we have had longer experience of the qualities and quantity of the mineral, but in the meantime there can be no doubt that the experiments made with it have been highly satisfactory. The following extract from the official report of the acting chief engineer of Her Majesty's ship Adventure, drawn up for the information of the Commander-in-Chief, embodies substantially the opinions and results set forth in nearly all the reports which have been published on the subject. The coal, we may premise, is taken from the Eight-feet seam of the colliery in question, at a depth of about 160 feet:—

"The coal was rather small; but there was no dust, dirt, or stone with it, and being fresh from the mine was slightly damp. In appearance it resembles a combination of Welsh and North Country coal; it was of a medium hardness, and when dry weighed the same, per measure, as Davidson's West Hartley seam coal. It takes fire very readily, requiring little fuel to ignite it, and the flame spreading remarkably fast over the furnaces raises the same in a very short time. After lighting fires in three boilers steam was up to the full pressure (10 lbs.) in 55 minutes. The temperature of the water in the boilers before the fires were lighted was 55°; and only six out of twelve furnaces were white-hot. The fires on board this ship burnt best by being kept at a medium thickness. As the coal cakes very much, forming a sticky soft mass in the furnaces, the fire hoses have to be frequently used; and the fires require a great deal of care and attention to keep the steam at a steady pressure. For steaming full speed this coal is not equal to Welsh or North Country, as the furnaces do not burn it fast enough on account of the coal caking and stopping the draught; but if it were mixed with equal proportions of Welsh I believe it would burn with little or no trouble, and keep steam well for full speed. For slow or expansive steaming Takasima coal is equal in every respect to the average run of Welsh, and much better than North Country or any other coal I have burnt on this station. For long voyages it is better than Welsh, and far superior to the North Country, as it produces less ash, clinker, or soot."

From an analysis of the coal, made by Dr. Jas. Martin, it seems that the specific gravity of that taken from the lower dip of the mine is 1.215, and that its constituents are in the following proportions:—

Carbon, 82.07; hydrogen, 5.30; oxygen, 3.35; nitrogen, 2.72; sulphur, 1.64; ash, 4.90; loss, 0.02. The samples taken from the level drives, showing a specific gravity of 1.211, are scarcely less satisfactory.

On first firing up the coal is said to give out smoke rather freely, but this soon passes off, and its deposits of soot are not more than would accrue from good English coal. The following remarks of Mr. Madden, chief engineer of Her Majesty's ship Ocean, are very conclusive as to its merits:—

"Keeping steam with ease at 51 lbs. pressure. Full speed for five hours with a continuous steam exhaust blast from four cylinders, being a very severe test of evaporative qualities for bituminous coal, which evolves large quantities of smoke each firing for a short time, but if used in ordinary boilers, without blast and slow combustion, this would be considerably reduced. I consider the two samples as tested above to be equal in general steaming properties to English North Country; and compared with Welsh, repeatedly tested under same circumstances, as shown to be best Welsh 5 cwt.—7 cwt. Takasima."

THE FACTORY ACT.

We have on several previous occasions emphatically protested against the very arbitrary provisions of the Factory Act. There can be no question that it materially interferes with the staple trades and manufactures of the kingdom, and that at a time when our continental neighbours are so closely competing with us in the production of articles of which England, at no very remote period, held almost supreme sway. Without wishing for a moment to enter upon the domain of politics, it must be evident to the most casual observer that the tendency of the present legislation is greatly in favour of the working classes, and in the desire to appease the clamorous demands so pertinaciously urged the interests of the manufacturers are sometimes set aside and sacrificed. The Factory Act is an illustration of the truth of our remarks. Probably, no Act has met with more opposition amongst those it most affects, the simple fact being that in practical operation no Act has been found to work more injuriously, or to more seriously interfere in the relationship which exists between master and man. Ever since the passing of the Act memorials have been presented, and deputations have waited upon the Home Secretary, in which the arbitrary and injurious provisions of the Act have been pointed out. Happily, modifications have been obtained, but at the same time there are many provisions which in the interests of the staple trades of the country should be altogether abrogated, and the masters left to conduct their business without interference of the State or parliamentary control. We may take it for granted that the interests of the masters and men are so closely woven together that they may be safely left to regulate their own affairs, and that nothing which prejudiciously affects either the one

or the other would be permitted to continue for any length of time. Some twelve months ago the report of the Inspectors of Factories was issued. It chiefly had reference to the extent to which the modifications provided for under the Factory Acts Extension Act could be applied. These reporters showed a very wide difference of opinion. The senior Inspector, Mr. REDGRAVE, recommended a large extension of the modifications—he liberally (and, in our opinion, wisely) interpreted the intentions of the Legislature. Mr. BAKER, on the other hand, demanded "the pound of flesh" which the Factory Act gave—he would have it rigidly and harshly enforced to the very letter, and recommended the Secretary of State to withdraw all the modifications which had been previously granted. Fortunately for the interests of the large manufacturers and traders generally, the advice of the senior Inspector prevailed, and many important modifications were permitted, and trade proportionately benefited. Shortly after the report of the Inspectors of Factories had been issued, a printed document emanated from the Factory Department, containing a memorandum of what had been agreed upon by the Inspectors respecting the granting of modifications to particular trades. One of the principal of these modification clauses was that of No. 17, which permitted the employment of male young persons during the night until the 1st day of July, 1870, in certain manufactories and engineering works; and another clause permitted the employment of male young persons of sixteen years of age, as male adults, in certain works and manufactories until the same date—the 1st of July, 1870.

The cessation of the employment of male young persons of not less than 16 years of age after the 1st inst. was considered to be so seriously and injuriously affect the interests of the ironmakers and large manufacturers generally that on Friday last a very influential deputation waited upon the Right Hon. H. A. BRUCE, the Home Secretary, with a view of obtaining an extension of the sixth temporary modification of the Factory Act Extension Act, 1867, whereby male persons of not less than 16 years of age may be employed in certain manufactories in the same manner as if they were 18 years of age. The prejudicial effect of the operation of the Act in relation to the employment of these youths was most clearly pointed out, and the arguments were, in our opinion, unanswerable; in fact, they evidently had so much weight and force that the Home Secretary, whilst declining to make any general rule in favour of the asked-for modification, pointed out that where inconvenience could be substantiated in any particular case there would be no difficulty in granting a modification. We take it that the very fact of so influential and important a deputation waiting upon the Home Secretary is a proof that inconvenience exists in every particular work or factory represented, and he should certainly urge upon every individual member of the deputation to strive to give practical effect to the remarks of Mr. BRUCE, nor do we think that any great difficulty would be found in manufacturers generally conclusively proving the inconvenience which would result from the withdrawal of male young persons under 16 years of age from particular departments of work where quickness of action is one of the most necessary and valuable essentials. The reply of the Home Secretary to the deputation admits, in effect, the necessity of the required extension of the modification asked for, and such being the case much greater satisfaction would have been afforded if the boor had been generally granted, rather than that the manufacturers should be required to substantiate individual cases of inconvenience and hardship.

The Factory Act, if it would ever find favour with either master or man, should be construed in a liberal spirit, rather than the strict letter of the law be rigidly and harshly enforced.

GOVERNMENT INSPECTION OF MINES.

The occurrence of several lamentable explosions in the districts inspected by Messrs. HIGSON, BROUH, and WALES, has caused the annual reports of the Government Inspectors of Mines for 1869 (which have just been printed, and are fully referred to in the Supplement to this week's Journal), to appear, when taken in the aggregate, somewhat less favourable than in the preceding year; yet upon careful analysis it will be found that, excluding the explosions in these three districts, there has been a very satisfactory improvement in all directions. More coal has been raised for each separate fatal accident, but owing to the heavy explosions already mentioned, the tons of coal raised per life lost has been materially less. In 1868 there were 41 explosions, causing 154 deaths; whilst in 1869 there were 48 explosions, causing 237 deaths; but 9 districts out of the 12 have been as safe in 1869 as in the preceding year; 28 explosions in these districts in 1868 having resulted in 33 deaths, whilst in 1869 there were 36 deaths, occasioned by 25 explosions. The accidents from falls of roof and coal seldom led to more than one death, 451 separate accidents having caused but 466 deaths—Mr. HIGSON's statement that "he has found men working in great danger for want of their places being propped and spragged, when props and sprags in abundance were lying out of use within a few yards" (an observation that might be made by every Inspector), will explain why these figures keep so high. As to shaft, 123 separate accidents caused 129 deaths, so that there is no great cause for complaint in this case, and the same may be said concerning the miscellaneous accidents.

NOTES ON CONTINENTAL MINING—NO. III.

BELGIAN IRON PRODUCE.

The iron-producing country is the leader of civilisation. So intimately is the application of this most useful of metals interwoven with the progress of the arts that no considerable degree of civil advancement seems possible without it. It is, indeed, to its utility in the production of iron that coal is mainly indebted for its vast economic importance. Viewed in this light, the iron and steel manufactures of England are justly regarded as forming the means and measure of our material prosperity. The close competition which of late years has sprung up on the part of Belgium with this country has done much to call attention to the iron production of England. The fact that rails and girders can be got up in Belgium, transported to England and delivered in London, or even in the very centre of our iron districts, as cheaply as they can be produced by firms on the spot, may well awaken English manufacturers to enquire into the causes of this growing rivalry.

In Belgium no ironstone is found with the coal, as is the case in the measures of the South Staffordshire coal field. The ore is found diffused through several of the subordinate members of the Devonian and upper carboniferous series, and is chiefly worked in the triangular district formed by the junction of the Sambre and Meuse, and in the undulating country stretching thence to Luxembourg. The River Meuse, which flows through the length of the Belgian coal and iron district, is a slow river, and admirably adapted for navigation. Large boats, most of them hoisting two or three sails, thong the stream, bringing down ironstone from the upper portion of the river to the coal-producing localities. Other boats, laden with limestone for flux and timber for the Ardennes, add to the bustle and activity of the scene. The ironstone is of various kinds—hematite, limonite, and often an indefinite mixture of the two and peroxides. In a few places this ore is got from open works, but chiefly by means of shafts, varying in depth from a few yards to 200. The limestone is obtained from the magnesian lime deposits in the vicinity; and according to a well-known law regulating the use of fluxes, is better adapted for that purpose, on account of the greater number of its constituents, than the Silurian limes used in South Wales and Staffordshire. The coal for iron-smelting is used in the form of coke, which appears to be of good quality, and capable of resisting pressure in the furnace. It resembles the variety known in England as Durham coke. In visiting one of the principal blast-furnaces at Charleroi, the first appearance was very similar to what may be observed at the furnaces of Mr. Williams, Wednesbury, with the absence, however, of the huge incline for the ascent of the ore and fuel. The barrows for coke, ore, and lime were smaller than those commonly used in this country, and were drawn up by a vertical hoist moving in slides. Each of the materials for the furnace—lime, ore, and coke—was, in the first instance, reduced to small lumps, about the size of a moderate potato, and to assist its friability a jet of water was allowed to play at intervals upon the unbroken ironstone in the furnace yard. The materials, after being suitably broken, were care-

fully mixed in the requisite proportions, and not added in separate barrows, which is too commonly the practice. So that in looking at each barrowful as it went up, or at the mass in the furnace top, the most intimate admixture was apparent. A constant vigilance was likewise observed on the part of the men at the top of the furnace to preserve a uniform mixture in the distribution of the materials. We observe no coal in use. The hot-blast is employed at a mean pressure of 35 lbs. per inch. The waste gases from the furnace top are collected by a bell, and utilised to heat the blast and the boilers for the powerful steam-engine. The average production of pig-iron for one furnace is 52 tons in 24 hours. Height of furnace, 49 ft.; greatest diameter, 15 ft.; diameter at top, 11 ft. The furnace cost for the production of iron was stated at 4s. 2d. per ton.

With regard to the subsequent working of the pigs bar-iron, the processes correspond with those commonly in use in this country. Shingling appears less common, squeezing being generally adopted.

The wages paid for iron-workers per day we give below, and for

comparison add those of South Staffordshire. They present no variation from the figures given by Creed and Williams, 1868:—

Description.	Belgium.	South Staffordshire.
Common labourers.....	1s. 5d. to 1s. 8d.	2s. 6d. to 2s. 6d.
Puddlers.....	4s. 2d. to 5s. 0d.	7s. 6d. to 7s. 10d.
Puddlers' helpers.....	2s. 8d. to 3s. 1d.	2s. 6d. to 2s. 11d.
Puddle rollers.....	4s. 2d. to 5s. 1d.	9s. 0d.
Shearers.....	1s. 10d. to 2s. 6d.	—
Shinglers.....	—	9s. 0d.

The price of bar-iron at the works was, in 1866, per ton—England, 6s. 10d.; France, 7s. 18s.; Belgium, 6s. 18s. 6d.

The import duty of 60 frs. per ton on English and Belgian iron coming into France enabled her to compete successfully in her own markets with foreign producers. But it is quite apparent that the ordinary fluctuations of the market, pressure from Trades Unions, or other causes that raise the price of iron in England, will enable the Belgian producer to take an advantageous position in the English market. Besides the low rate of workmen's wages, several other causes contribute to the cheap production of iron in Belgium. Among these we may mention the rich quality of the iron ore (many works using an average of 60 per cent.), the number and superiority of the roads and canals, the cheap transit by rail, and the ready access to the markets of France and England. Belgium was the first European State that undertook the construction of railways at the public expense. There are 352 miles of State railway laid down, at a cost of 5,193,205L, and 936 miles belonging to private companies, which cost 12,952,231L, being at the rate per mile—State, 14,753L; companies, 12,769L. The cost of conveyance is proportionately lower than in England, both for passenger and goods traffic.

Iron works and machine shops of every description are situated along the banks of the Meuse; and, indeed, the productions of the mechanics of Belgium rival in beauty and finish the best specimens of French or English art. Nail-making is largely carried on in the environs of Liège and Charleroi; at the latter place alone 5500 hands are employed in this branch of industry. The immense Royal cannon foundry at Liège has apparatus for casting ordnance of the largest description, and boring and polishing machinery of the most admirable kind. Numberless manufactories of small arms in the villages round about export annually a considerable quantity.

The admirable works of Sir John Cockerill and Co., at Seraing, near Liège, are a model of a first-class manufactory, and the best of their kind in Belgium. They occupy the palace and grounds of the ancient bishops of Liège. This establishment was commenced by Mr. Cockerill in 1816, and on his death, in July, 1840, was managed by Mr. Pastor, who has now retired from the more active duties of management, and lives at Liège. The present acting manager is Mr. Sadoine. The firm possesses its own mines of coal and iron, blast-furnaces, boats, and other appliances; employs 7500 men, and pays in wages above 5000L weekly. The number of air-furnaces, capable of heating the largest shafts for forging purposes, the machinery for turning and planing iron-work, for boring cylinders, screw-cutting, casting, for drilling and riveting, and the apparatus for wheel-tires, axles, and for boiler-making, were particularly striking. The various portions of machinery were driven by no fewer than 156 steam-engines, having an average of 25-horse power each. At present a series of girders is in course of construction for a bridge of 200 ft. span, and steam-engines, locomotives, stationary, and marine in endless variety. The works cover an area of 181 acres.

MINING ASSOCIATION OF GREAT BRITAIN.—A council meeting of the Mining Association was held on Wednesday, at the Craven Hotel, London. Business which had been set down for discussion in anticipation of the Mines Regulation Bill going into Committee on Monday next had to be postponed, as there is little or no chance that the Bill will come on then. Some amendments in the Mines Bill were discussed, which are required in order to place ironstone mines, not in the coal measures, on the same footing as regards temporary exemptions as coal mines. These ironstone mines are now for the first time brought under inspection. There is a strong wish on the part of everyone concerned that the Bill should pass this session.

MINES REGULATION BILL.—In the House of Commons, on Monday, Lord ELCHO wished to ask a question of the right hon. gentleman the Home Secretary relative to the Mines Regulation Bill, which stood third on the paper for Monday next. Upwards of 100,000 miners had recently petitioned in favour of the Bill, and they were all most anxious that the Bill should pass this year. He wished to know whether the Bill would be proceeded with on Monday next. Mr. BRUCE had very little hope of being able to bring on the Bill on Monday next, but he trusted he should be enabled to fix a day specially for it, as the Bill was one he hoped to pass this session.

TRADE UNIONS, AND THE REGULATION OF MINES.—In the House of Commons, on Thursday, Mr. MUNDELLA asked the Home Secretary what course he proposed to take with respect to the Trades' Unions and Mines' Regulation and Inspection Bills?—Mr. BRUCE: It is obviously impossible to introduce during the present session a Bill of such importance as one relating to Trades' Unions. Probably the civil portions of that Bill might be passed without much difficulty, but what may be called the criminal portions of the Bill—that is, the changes in the criminal law which may be necessary—will require the most careful consideration on the part of the Government, and ought to be submitted to the House, so that there might be ample time to discuss it. What I propose to do, therefore, on the part of the Government is to renew the short Bill passed last session, in order to give time for the introduction of a larger measure. With regard to the Mines' Regulation Bill, it is the earnest desire of the Government to pass that Bill during the present session, if possible, and I hope that we shall be able shortly to devote a morning sitting to the consideration of the measure.

STEAM-BOILER EXPLOSIONS.—In the course of his examination before the Select Committee of the House of Commons, Mr. LONGRIDGE, chief engineer of the Boiler Insurance and Steam-Power Company, said the number of boilers in the country was about 100,000, the average of explosions being about 50 per annum. During the last 11½ years there had been 581 explosions, causing 922 deaths. Among the inspected boilers the rate of explosions was about 1 in 4600. Last year there were 63 explosions, 19 of them being caused partly by mal-construction and partly by deterioration of the iron, 19 by corrosion of the plates, 9 by negligence, 3 by over-pressure, 2 by injudicious repairs, 2 by overheating, and 1 by a door of a locomotive coming in contact with a tunnel. The chief cause of explosion was deterioration and corrosion. He did not think that the security of well-managed works was equal to the security obtained by Inspectors, the latter being better able to detect flaws than the attendants. Defects in material were very difficult of detection, but in some instances flaws have been found in new boilers before they were put in use, and rectified.—Mr. M'NAUGHT, the Chairman of the company, informed the Committee that they employed a chief engineer and five assistants, who were all first-class engineers. Then they had 26 or 27 Inspectors, calculating one Inspector for every 500 boilers insured. The Inspectors receive from 120L to 150L a year, with all travelling expenses; while those in the engineer's office were paid salaries ranging from 200L to 600L, the average being 350L a year. The company charged for insuring boilers according to the quality, the premium

on an insurance of 100L being about 12s. They did not insure any locomotives, not deeming it necessary.

REPORT FROM SCOTLAND.

July 6.—At the close of the first half of the year it may be instructive to take a glance backwards to trace the course of events. It is satisfactory, then, to note that since the commencement of 1870 the Scotch Iron Trade has experienced considerable revivifying influences, and prices have been moderately remunerative to those engaged in it. The monthly average range of prices for pig-iron shows an advance on those of last year, with the exception of the month of February, while the last quarter exhibits an increase of from 6s. to 10s. per ton, according to the under-noted estimate, which will be found correct:—

January. February. March. April. May. June.
1870. 5s. 3d. 5s. 7d. 5s. 3d. 5s. 1d. 5s. 9d. 6s. 3d.

1869. 5s. 2. 5s. 1½. 5s. 3. 5s. 2. 5s. 3. 5s. 9.

The average of the last 10 years was 5s. 1d., and for the last 25 years 5s. 5d., showing that during the last decade all enterprises in which iron was absorbed could have been economically managed.

During the same period there has been an increase in the foreign shipments of about 27,000 tons, and a decrease in the coastwise shipments of about 9000 tons, leaving an increase overhead of upwards of 18,000 tons for the six months past. The furnaces in blast are seven in advance of the number in operation at the end of June last year, and those in and out of blast at present are as under:—

GLASGOW BRANDS.			WEST COAST BRANDS.			
Brand.	Blowing.	Out.	Brand.	Blowing.	Out.	
Gartsherrie	14	2	16	Eglinton	7	1
Cottontown	12	0	Blair	12	2	
Summerlee	7	1	Lugar	8	3	
Langloan	8	0	Muirkirk	4	0	
Govan	4	1	Portland	4	2	
Calder	6	2	Eglinton	4	2	
Carnbroe	6	0	Shotts	4	0	
Wishaw	3	0	Castleshill	2	1	
Monckland	5	1	Kinnell	3	1	
Chapelhall	3	0	Almond	2	1	
Clyde	5	1	Carron	3	1	
Quarter (Clyde)	4	0	Lochgelly	2	2	
Dalmellington	8	0	Gladsmuir	1	0	
Ardeer	4	1	Lumphanan	1	1	
Glengarnock	6	3	Bridgeness	0	2	
Total				132	28	
					160	

On June 30 the pig-iron in stores amounted to 422,308 tons, against 336,903 tons at the end of the June previous, being an increase of nearly 85,500 tons. Of this large quantity the "bears" are reported to hold covering quantities, and hence speculation has been checked in this market for the time. But it should not be forgotten that some of the operators on Metal Change are dexterous in contrivance, and ready in resources, and can play a winning game while appearing to have given up hope. In the meantime brokers are on their guard, and hence we have had rather a drooping market this week, business yesterday being done as low as 5s. 3d. cash and 5s. 7d. a month, but the close was 3d. better, with buyers over. To-day the market opened firm—5s. 10d. cash paid, 5s. 1d. a month; closing weaker—sellers, 5s. 9d.; cash, 5s. a month. No. 1, g.m.b., 5s.; No. 3, 5s. 6d. Coltness, 6s.; Gartsherrie, 6s.; Summerlee and Langloan, 6s.; Eglinton, 5s.; Shotts, 6s.; Glengarnock, 6s. The shipments of pig-iron from the Scotch ports for the week ending yesterday were 12,880 tons, against 15,192 tons in the corresponding week of 1869. The total imports from Middlesborough for the year till date were 33,720 tons, being an increase on the six months of 10,815 tons.

In Malleable Iron there is a brisk trade doing, merchant bars being in some demand for early shipment; but ship and angle iron is quiet, not because there is any diminution in the shipbuilding trade of the Clyde, but simply because the great bulk of the ship iron required for the remaining months of the year is already booked. There is some enquiry for boiler-plates, and activity amongst the few Scotch rail-makers, but there is a sensation of quietness, rather than of activity, experienced by the negotiators of contracts for the various works, which, perhaps, the intervening of the Fair holidays may dispel. Founders of light castings and pipes are doing less the last few days, and there is even a cessation in the demand for railway chairs. With regard to the puddlers' demand for an advance of wages—which brought on, first, a strike of a single week, and then a threatened lock-out, and which ended in a verbal compromise, on a basis already noted in the columns of the *Mining Journal*—it would appear as if it were going to be a puzzling question to decide. There has been a meeting of ironworkers' delegates, but they do not seem to know how to present their claims to their employers, beyond the fact that they wish to commit them to a Board of Arbitration before they proceed a step further. They regard this board as a *sine qua non*, and a sure specific for all their woes, but it is feared it will prove as useless as "thine incomparable, O Macassar!" The Board of Arbitration, if it were ever agreed to, is not likely to succeed, as it is not looked upon with a friendly eye by those most deeply interested in its formation.

The coasting Coal Trade has been more active during the past week than the foreign, although the shipments are about of equal extent, the aggregate of the two being 43,680 tons, against 34,705 tons in the corresponding week of last year. Up till the end of the present and during the first few days of next month the contracts for the fall shipments to British North America will be given out, and as some pretty heavy lines are to be had, although at low prices, there is a push amongst the sale coal masters to get as large a share as possible. Some even take contracts to enable them to get their lordships paid up, and at prices which are never permitted to transpire. A good deal of coal, otherwise unsaleable, is by this means cleared off, and more space is given for operations at the pit head. In prices there is no quotable change. The miners in the Motherwell district have selected this particular time to strike at several of the pits for an advance of wages; but the advance, if given, will only be continued till the push is over. Last year, it will be remembered, the colliers, when their wages stood at 5s. a day, reduced their darg by a sixth, and submitted to a reduction of 10d. per day—its equivalent. They then declared that 4s. 2d. a day was too little for a collier, and they struck for 4s. 6d., which they got. Now they want 5s. a day for the reduced darg of 10 hutes instead of 12, as formerly, and which, if paid, will make their wages equal to 5s. 10d. under the 12-hut arrangement. This is skilful practice, but it will before long make the prices of coal tell their own tale, if not in the ear, at least on the purses of consumers.

The report of Mr. Alexander, Government Inspector of Mines in the Western District of Scotland, for the year ending Dec. 31, 1869, has been published. From returns made to that gentleman, it is shown that the quantity of coal and dross raised during 1869 was 6,137,043 tons; and the number of persons engaged in producing and delivering it at the surface was 20,007. Of these, 251 received serious personal injury, and 39 of them died from the effects of such injuries. In the late draft Bill of 1869, for the regulation of mines, several important general rules were proposed. Mr. Alexander says—

"In addition to these, I would suggest that another general rule should be added, prohibiting the practice of placing 'tubs' upon cages in open shafts at midworkings, unless under certain conditions which would provide for the safety of the persons engaged at such works. The working of the statute 25 and 26 Vict., c. 79, I regret to inform you, is still unsatisfactory. In 1867 I pointed out the difficulty of enforcing compliance with it, in consequence of the mode of procedure required to be observed in the civil courts. I see no cure for this state of things. Under existing circumstances it is creating a disagreeable feeling, and tends to retard the proper carrying out of that really wise and useful measure. In the event of a change being made upon the existing law relating to mines, I think that it would be incomplete unless it contained provisions for enforcing a more speedy observance of this particular part of it. During the past five years' experience of the double-shaft system, the question has frequently been put as to what is the most suitable position in which to place the shafts to each other. Regarding this there is a variety of opinion. I believe, however, that the shafts should be some distance apart; at least, a great deal more than 10 feet."

During last month 21 vessels were launched on the Clyde, of 15,803 tons; and in the past six months 90,000 tons were set afloat, which is about 10,000 tons under the first six months of 1869. There has just been launched for the

African Steam Navigation Company an iron screw, of 1338 tons, and 250-horse power. She was named the *Liberia*, and is to trade on the north coast of Africa.

The gunpowder shipped from the Tail-of-the-Bank, for the six months ending June 30, amounted to 1,445,000 lbs.

ALARMING COAL PIT ACCIDENT NEAR AIRDRIE.—A singular accident happened at No. 5 coal pit, Cairnhill, near Airdrie. About five o'clock four men were brought to the surface; a hatch was then placed on the cage to be lowered. Before it had descended far, however, the lying shaft broke, causing other damage, and the engine, freed from encumbrance, worked at a fearful rate. But for the promptitude of the engineer in turning off the steam and applying the break, the consequence might have been terrible. As it was the cage with the full hatch fell to the bottom with such force that the other cage was drawn over the pulleys and buried into an adjoining cage held to the full length of the tow. The empty cage was thrown some distance further, and badly damaged. Although 15 hands were employed on the pit head at the time none were injured. Arrangements were immediately made to raise the 100 men who were working below by means of the communication pit. No. 7, and all of them safely reached the surface that evening. The damage is estimated at 500L, and over 120 men will thus be thrown idle for two or three weeks.

REPORT FROM THE NORTH OF ENGLAND.

Middlesborough, July 6.—Yesterday the Quarterly Meeting of the North of England Iron Trade was held at the Royal Exchange, Middlesborough. The attendance was large, and combined representative ironmasters from Staffordshire, London, Newcastle, and throughout the North. The usual facilities were afforded for the exhibition of models and other articles of interest to the trade, but the opportunity was used by only two parties. Whitwell's patent hot-blast stove—which has before been described in these columns—was again shown by diagrams. These stoves are being put up at the Carlton Iron Works—which are to be started by the North of England Industrial Iron Company as early as practicable—to improve the defective stove arrangement of the furnaces as they originally were. A model was exhibited by Messrs. Fox, Head, and Co., of the Newport Iron Works, Middlesborough, showing the working of their patent puddling furnace and boiler. The model was attentively inspected by many gentlemen present. The object of the invention is to provide a furnace by means of which pig-iron may be converted into wrought-iron by the puddling process, with a less expenditure of coal than has hitherto been necessary. The means by which this result is arrived at are thus described:—

"Above the neck of the furnace the stack is enlarged into a chamber, which is divided into two parts by a wall. Suitable openings and a damper are so arranged that the waste heat may be sent through one side or the other of the divided chamber, or a portion on either side. The side of the heating chamber farthest from the furnace contains stove-pipes, which absorb any desired amount of heat from waste gases. By a combination of pipes, a funnel of peculiar form, and a steam jet constantly blowing into it, a stream of air moistened with steam is made to pass through the stove-pipes, along the back of the furnace, and thence partly into the ash-pit, which is fitted with closed doors, and partly into a box furnished with six tuyers on the top of the furnace. The mingled air and steam gathering heat as it proceeds is thus made to feed the fire, to the exclusion of cold air from without. But only a portion of the waste heat can be absorbed by the stove-pipes. The remainder is made to pass through a vertical boiler furnished with a number of cross tubes, and in this way it is almost entirely utilized. By withdrawing the damper the flames pass entirely by the most direct route to the chimney, and the furnace works as an ordinary one. An experience of two years' practical working has proved that the cost of maintenance in repair is not more in proportion than an ordinary furnace. The arrangement is due to Mr. Jeremiah Head and Mr. J. A. Jones, late manager to the firm, whose name the new furnace bears.

The demand for pig and manufactured iron was good, although the enquiry for rails is hardly so strong as has recently been the case. If anything, quotations for this class of material are rather weaker for next year's delivery, but no tangible alteration is yet observable in the price list. The mills are all in full work, on both rails, plates, and bars. Common bars are quoted at about 7s. 2s.

little difficulty with respect to a second shaft, which must be opened to the seam before coal operations can be resumed, but this difficulty there is little doubt will soon be overcome, as there are a number of shafts on the estate. On the west side of Tyne Bridge the Knockley and Wylam Collieries, lately re-opened, are progressing very well, and a considerable quantity of good steam and coking coal is now produced from them.

NORTHERN INSTITUTE OF MINING ENGINEERS.—There is no meeting of the members of this Institute in July, the next meeting, therefore, will be held in August, which is also the annual meeting, and it is expected that there will be a large attendance of members, as they are scattered over the three kingdoms; indeed, some of them are in different parts of Europe and America. It is expected that the near approach of the important meeting to be held in connection with the Institute in Scotland will have the effect of bringing a large number of members to the annual meeting. It is now definitely settled that the interesting event will be held in Glasgow on Aug. 9, 10, 11, and 12, instead of as previously arranged. At a meeting held in the Council Hall, Glasgow, under the presidency of the Hon. William Rae Arthur, the Lord Provost, committees were formed for making arrangements for the suitable reception of members residing at a distance, and a programme was agreed to. There will be a special meeting of the council of the Institute on July 23, to examine papers proposed to be read by members of the North of England Institute, and on Saturday, July 30, a detailed list of the papers to be read by members of both institutions, and also of the arrangements made for the excursions, works to be visited, and various entertainments to be given, will be sent to the members.

SWALWELL IRON WORKS.—These extensive and valuable works, formerly belonging to Messrs. Crowley, Millington, and Co., and now to Messrs. Pow and Fawcett, were offered for sale by Mr. Moses Pye, at Newcastle, but without finding a bidder. There was a large attendance of gentlemen interested in the iron trade. The auctioneer said the works had been carried on with great success for 200 years, and he had no doubt they would be carried on with even greater success for the next 200. Those who knew Tyneside were aware there was no building land to be got; it had been letting recently for 60/- to 80/- per acre per annum. He knew of an instance where they had had to give 30/- an acre, and to remove the ballast hill before they could put up their machinery. The river works which were going on, and which would soon be completed, as the commissioners had now got the money, would be a very great acquisition to the higher parts of the Tyne.—Mr. Bagnall reminded the auctioneer that the Tyne was to be deepened just below the Derwent, upon which these works are situated, and there were already 2 feet more water.—The auctioneer added that it was very likely there would be docks at the Rotherham in a short time; and it only required railway facilities, which could be very easily provided, to give ready means of transit to all parts of the kingdom.—Several offers were made to the auctioneer after the sale, which were not acceptable. A proposal by some influential gentlemen was made to convert the concern into a limited liability company for the manufacture of steel and iron goods. This scheme was considered, and will, not improbably, in a short time be brought before the public in a definite shape.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

July 7.—All the accounts concur in representing that the demand for manufactured iron is improving. Most of the works are now in full operation, and a good summer's trade is anticipated with confidence. Prices are firmer, and as pig-iron is dearer, the second-class manufacturers have no choice but to demand somewhat higher rates.

The result of the inquest in the case of the boiler explosion at the works of Messrs. Simencourt, at Bradley, adds another testimony to the care with which the inspectors of the Midland Steam-Boiler Association do their duty. The defence that the boiler was generally considered safe, and that it was as strong as many others in use in the district, is rather alarming, for it did justify the fears of the inspector, and it may be presumed that there are many others ready to go. The proposal for Government inspection of boilers will gather strength from such facts as these, unless all proprietors of boilers would furnish proof that such inspection is needless, by availing themselves of that afforded by the associations, and acting upon the suggestions given.

Talke, in North Staffordshire, was on Friday the scene of another sad accident, which caused the loss of four lives. The North Staffordshire Coal and Iron Company, at their iron works, convey the waste gas of two blast-furnaces along a tube to heat the furnace boilers. The gas contains a large quantity of carbonic oxide, a most deadly element, and in order that no danger may arise in clearing out the tube a fresh-air tube is connected with it, by means of which a strong current of air may be passed through the gas-tube. There had been some repairs done on Thursday, and on Friday morning it was found that further slight repairs were necessary in the tube, and for the purpose of making them John Smith, the manager, Jones, the boiler-maker, and another, went into the tube just after midnight, unknown to others who were working near. They were missed after about half an hour, and the blacksmith thought of the tube, and went to see if they were there; and the result was that all four were dead when the gas having been expelled they could be brought out. The manager, Smith, leaves a widow and eight children, and another of the sufferers a widow and three children. At the inquest Mr. G. J. Prownell, the superintendent engineer at the works, said it was not safe to go into the tubes when the gas was blowing, and it appeared that they were set to blow by the orders of the deceased manager. It also appeared that Smith had complained before of the repairs not going on fast enough, and that Jones, the boiler-maker, said in reply that the tube was not fit to enter on account of the gas. It would, therefore, appear as if Smith sacrificed his own and the lives of three by his anxiety to get the work done, and his indifference to clear warnings. A verdict of "Accidental Death" was returned. Dr. Percy, in a letter on the subject, says:—

"It is reported that four men have been killed at iron works in North Staffordshire by what is termed 'waste gas from the blast-furnaces.' The poisonous ingredient of that gas is carbonic oxide, and the inhalation of it in very small quantity, whether pure or mixed with common air, rapidly destroys life. I have collected and published several cases of fatal poisoning from that cause at iron works, foreign as well as British. A few years ago the engineer of the Dowlais Iron Works was suffocated in his office by the escape of this gas from an adjoining culvert. It is important that the managers of such works should be acquainted with its highly poisonous nature, and take every precaution to prevent their workmen from being exposed to its influence. As the use of the waste gas from our blast-furnace for heating steam-boilers, mine kilns, &c., is extending daily, it is to be feared that deaths from its inhalation may become more frequent than hitherto, unless those who deal with it are fully instructed concerning its action on man. With the hope of communicating such instruction as widely and as quickly as possible, I beg to submit this letter for your consideration."

An enquiry took place before Mr. Hooper, coroner, on Saturday, respecting the death of Simeon Wood, who was killed on the previous Wednesday at Mr. Spittle's colliery Gold' Green. Mr. Baker, the Government Inspector, was present. It appeared that on Tuesday evening he had been blasting a piece of coal, and that on the following morning he was looking for his pick and shovel under the coal which he had loosened, when it fell and killed him. A verdict of "Accidental Death" was returned.

The North Staffordshire Coal and Ironmasters' Association Quarterly Meeting was held on Thursday, at Stoke-on-Trent, Mr. Wragge in the chair. It was decided to make no alteration in list prices, and it was stated that the existing list prices, which were fixed along with wages in November last, could not be generally obtained, even with every effort on the part of manufacturers to avoid underselling. The meeting, however, determined to make a stand for the list prices in new contracts, but all the manufacturers were stated to be in a great measure working on orders taken some time ago under the list prices. An average sale of pig-iron was reported for the quarter's consumption, but the demand was not keen, for there had been no advance in price over the earlier portion of the year. In works a steady business was being done, but both that and the coal trade were stated to be without any particular animation. The subject of the Factory Acts was again discussed, and it was determined, in the interest of the young people employed at the iron works, quite as much as of the employers, to use every endeavour to obtain for the separate works a continuance of the modifications which have been found to work well up to the present time.

The Langley Heath Estate (130 acres), near Sutton Coldfield, has been sold by auction, by Messrs. Cheshire and Gibson, for 9600/- The purchaser was Mr. James Horefield.

An explosion of gas occurred in Messrs. Staines's Sheriff Pit, Silversdale, on Thursday. There were about 50 men at work in the pit, some 30 in the 8-foot working, in which the explosion occurred. The noise of the explosion was heard by the men working at the bottom of the shaft, who went up and raised an alarm, and then went down to explore. They sent up four men—two were dead, one died in an hour, and the other recovered. Six other dead men were found in the workings. The number of men believed to be dead is twenty. The roadways are blocked up with the debris, and have to be cut through before the bodies can be reached. Several men had narrow escapes. The explosion is supposed to have occurred 200 yards from the shaft. The cause of the accident is unknown. There was gas in the pit, but the lamps were used under strict regulations, and every precaution was taken to prevent accident. It is supposed that one of the men opened his lamp. Great excitement prevails in the village, and the pit banks are crowded with people. Explorers were still down the pit at nine o'clock. No more bodies have been recovered.

[The excellent report of the Visit of the South Staffordshire and East Worcestershire Institute of Mining and Mechanical Engineers, as prepared for the *Times*, is published in the Supplement to this week's Journal; and the series of papers, "Notes on Continental Mining," by our own Correspondent, is continued in another column.]

MINE FLOODING IN STAFFORDSHIRE.—We have recently reported the serious consequences arising from the flooding of mines in the Tunstall and

Burslem portions of the North Staffordshire coal field, and we have now to add that from a different cause a mine at Longton has become flooded. It appears that Messrs. Hawley and Bridgwood have been working the Yard seam at a depth of 300 yards. The Moss seam above has been recovered over an extent of upwards of 50 acres, and the old workings there have been closed. The water accumulated in the old workings has been kept from the lower mines by an up-throw fault. On Wednesday night the water in the old workings was unexpectedly tapped, and began to flow rapidly into the Yard mine. The two powerful engines at the colliery ceased drawing coal, and were at once employed drawing water, without making any perceptible reduction of the quantity up to yesterday afternoon. Unless the greatest possible effort is made to clear Messrs. Hawley and Bridgwood's mines a large extent of coal field belonging to other proprietors must inevitably be inundated, and the damage, alrady great, will be increased to a serious extent, inflicting loss not only upon colliery proprietors and the men in their employ, but also the manufacturing interest of the district, which is already suffering from the inundation of the mines.

The Dudley Correspondent of the *Wolverhampton Chronicle* writes:—

At the Preliminary Meeting of the Ironmasters, held at Birmingham, Mr. Frederick Smith, of the Priory, Dudley, Chairman of the Association, presided. It was unanimously agreed that prices should remain as they are—common marked bars at the works, 8/-; best bars, 9/-; sheets, 9/- 10/-; doubles, 11/-; nail sheets, 9/-; latten, 12/- 10/-; boiler-plates, 9/- 10/-; rods, 8/-; hoops, 9/-; gas strip, 8/- 10/-; and all other sorts in proportion. The above are the declared prices for well-known brands. Second and third class makers are quoting below these rates; in fact, it is not easy to fix upon their selling prices, each manufacturer being governed according to circumstances. The demand for merchant iron is improving, and the works are, generally speaking, doing "five turns" per week. The total number of puddling-furnaces actually at work in the South Staffordshire districts amounts about 1700. They extend in one direction, from Wolverhampton to Birmingham, a distance of 14 miles, and in another from Kidderminster to Cannock, a distance of 24 miles. If we reckon each furnace to puddle 10 tons per week it would give a total of pigs used up in these localities of 17,000 tons. In computing the quantity of 10 tons used weekly in each puddling-furnace, considerable allowance is made for contingencies. There are at this time 107 blast-furnaces in operation in South Staffordshire and East Worcestershire, and as the tendency of improvements in the manufacture of pig-iron is to increase the make, we shall not be very far from the mark if we put the average weekly production of each furnace at 135 tons, amounting in the aggregate to 14,450 tons per week. It will be seen from the statement above that the weekly consumption of the puddling-furnaces exceeds the power of production by 255 tons of finished iron alone, in addition to which a considerable quantity is wanted for foundry purposes. It is, therefore, quite evident that the extra demand must be met by the importation of pigs from other districts. The prices of pig-iron are, if anything, stiffening, and the requirements for it increasing, and as a natural consequence little difficulty is found in effecting sales. There seems at present nothing likely to occur to check the buoyancy of the trade; it is that the producing power is being increased, by the erection of new furnaces and the re-lighting of old ones, and, if prices do not rule high, it is hoped they will become more remunerative than they have been for some years past. The labour market is tolerably active, and is likely to continue so for some time to come.

REPORT FROM MONMOUTH AND SOUTH WALES.

July 7.—In accordance with expectations, the Preliminary Meetings of the Ironmasters have been numerously attended, and some considerable business has been transacted. As was generally expected, also, it has been agreed not to advance quotations, as, taking all branches into consideration, the position of the trade is not such as to warrant the adoption of such a step just now. It would probably have given rise to numerous difficulties, not least amongst which would be the wages question. Comparing the prices obtained three months ago with the present, it will be seen that an appreciative advance has taken place; still it cannot be said that the list agreed upon at the commencement of the year has been exceeded. There will, however, be much less difficulty experienced by first-class manufacturers in exacting full rates, and in all probability, with the brisk demand, which is likely to be kept up for months to come, prices will be still further enhanced before the year has closed. Throughout the district the trade continues to present an animated aspect, makers having on their books numerous orders yet to be executed, but which are now being worked off with the utmost rapidity to make place for forthcoming business. From the United States and the Continent enquiries continue to come in freely, and some large contracts have recently been secured. Both at home and abroad stocks are completely cleared, and rails and accessories have still to be conveyed direct from the mills to the quay-sides for shipment. It is expected that considerable improvement will take place in the Russian trade towards the middle of the present month, when the iron exports to that quarter will assume something of their former magnitude. Some important specifications on Indian account are also looked forward to. One or two Canadian contracts have lately come to the district, and others are expected soon to follow from that and other colonies. The home trade may be said to be improving. The demand for pig-iron continues brisk, and prices are firm. There is more doing in bridge work, and bars, &c., command a slightly better sale. There is no change to be noticed in the Tin-Plate Trade.

In the Steam Coal Trade business is again a little brisker. As compared with four or five weeks ago, there is clearly some improvement shown in the demand, but it cannot yet be said that the trade is in a satisfactory position. The French markets continue to be the largest purchasers, and some of the mail packet stations are also considerable customers. The pits are this week kept in more regular employment, the water supplies being more plentiful since the rain falls. In all branches of the House Coal Trade there is a marked degree of quietude still evinced.

Considerable notoriety has been incurred of late by the Dowlais Company's pits at Yochtwi. Several accidents have occurred in quick succession, by which several lives have been lost, and a strange discovery was made a few days ago. About 11 years ago the company sunk a coal shaft to the depth of 80 yards, but then for some reason abandoned it. Directing their attention to the shaft again recently, men were engaged to clear out the water, and otherwise prepare it for working purposes, and whilst thus engaged a human skeleton was found at the bottom. It was recollect that some ten years ago a collier working in the neighbourhood suddenly and mysteriously disappeared, and was not heard of after. A relative has identified the remains, and it is concluded that the missing man was murdered, and cast into the pit.

The new low-water pier at Cardiff, which has been built by the trustees of the Marquis of Bute, has been completed and opened. In the construction of this pier a necessity long felt has been supplied, and the trade of the port will be much facilitated by its use. Steamers plying between that and the other ports of the Channel will be enabled to arrive and depart at any state of the tide, which will of course, greatly convenience passengers and the conveyance of goods, &c. The pier is 250 feet in length, and varies from 24 to 100 feet in width. The Rhymney Company's railway is extended to the pier head, and it is expected that shortly the Taff Vale and Great Western will also be connected.

It is now pretty confidently believed that the Great Western Company have decided upon constructing the Pontypool, Caerleon, and Newport Railway, and for that purpose engineers are now engaged in sketching and preparing plans.

It is understood that at the Rhymney Iron Company half-yearly meeting a resolution will be submitted, to the effect that the company be registered under the Limited Liability Acts of 1862 and 1867, and that the directors be instructed to take the necessary steps for the purpose.

THE TIN-PLATE TRADE.—The Quarterly Meeting of the tin-plate manufacturers was held at the Bell Hotel, Gloucester, on Wednesday. In the absence of Mr. Woodruffe, Mr. T. W. Booker occupied the chair. There was a moderate attendance, and among the buyers represented were H. Nash and Co., Bolitho and Sons, French and Smith, and Von Dadelzen and North. From the reports received from the various works it appeared that the trade was still in an unsatisfactory state, but it was generally agreed that there were evidences of improvement beginning to appear. The price of the continues high, and iron is advancing; and taking the cost of the raw material into consideration, tin plates have been selling during the last quarter at unusually low prices. The exports to the United States and Canada during the last quarter have decreased to a material extent, owing to the reduction in the make, and partly to the determination of makers not to send plates out except to meet actual requirements. Hence as compared with three months ago the prospect of the American demand is decidedly more hopeful. There are also other indications that the worst time has been passed over. Taking these circumstances into consideration, and the high price of the raw material, it was unanimously resolved to advance the price 1/- per box. The members, as usual, dined together after the meeting.

IMPROVED SAFETY-LAMPS.—Our excellent townsmen, Mr. Evans Thomas, who is the only safety-lamp manufacturer in the Principality, is indefatigable in his endeavours to produce a safety-lamp as nearly perfect as possible, and thus give the collier as much security as can be derived from such instruments. He has lately registered another of his productions, which seems to have great recommendations. Before announcing it to the world he took the precaution of having it tested by eminently practical men. Among other improvements is one that excludes all foul air and dust, and prevents the formation of any explosive mixture of gases inside the lamp. By means of metallic and elastic materials the glasses for the lamp, which has more than one, render the lamp perfectly air-tight. The air required for purposes of combustion is admitted through openings at the top, and has to pass through several wire gauges before reaching the flame. The heated air passes through the inner tube, the lamp being double from top to bottom, and ultimately escapes through perforations in the top of the lamp. Owing to the glasses being inserted in elastic bands or washers, not only is the lamp rendered air-tight, but the glasses are protected from breaking when expanded by the heat of the burning lamp. In ordinary lamps it is difficult to keep the light burning in a current of air,

but the light in this lamp is not put out even in the current when being carried up or down the shaft. Moreover, should the outer glass be broken in the lamp it is still as safe as the ordinary Clanny lamp when quite perfect in condition. All together, this new production seems to be quite an improvement upon all previous ones.—*Cardiff Times.*

REPORT FROM DERBYSHIRE AND YORKSHIRE.

July 7.—There has been no change in the state of the Iron Trade of Derbyshire since last notice, most of the works doing a very fair business, whilst the output of pig-iron was never larger than at present. Some of the lead mines are looking rather better—the one close to Wirksworth, and another in the same neighbourhood, near Matlock. At Eyam also prospects are looking more healthy and encouraging. House Coal is still very quiet, although a full average tonnage for the season is being sent to London and the South. For Steam Coal there is a very good demand, not only for the local works, but for the furnaces in Northamptonshire, where the production of raw iron is now increasing. To the Yorkshire ports also a good deal is being sent for shipment to the North of Europe. Coke is in active request.

Nearly all the heavy branches of the Sheffield trades are now in full operation, and some considerable orders are in hand for locomotive and general railway material. The rail mills are very busy, and there is a capital demand for axles, tyres, springs, &c. The heavy armour-plate works are doing a moderately fair business. Makers of Bessemer steel were never busier than at present, and there are some very large orders in hand. In the neighbourhood of Rotherham the works are kept very well going in nearly all qualities of iron.

At Elsecar, considerable alterations and additions are being made to the extensive works of the Messrs. Dawes. A large business continues to be done in rails and plates, a considerable portion of which is on account of foreign shipment. When the new rail mill and the gas-heated puddling-furnaces are completed the works will be amongst the most extensive in the country. The South Yorkshire coal trade has in no way improved, so far as regards house qualities, so that the tonnage going from the district is by no means large. Unfortunately, too, in consequence of Sir J. Karslake, in whose hands the alteration of the rates or otherwise of the coal going by the Midland and Great Northern Railway is left, not yet having given his award, coalowners are unable to make contracts for future supplies. There is a rather brisk demand for steam coal for Hull and Grimsby, the shipping season now being at its height. Engine fuel is in moderate request for the Lancashire districts, and a good deal of coal is being sent into the Frodingham district in North Lincolnshire for the furnaces there. Makers of coke find no difficulty in getting stocks, and a considerable quantity is being sent from the district into Staffordshire.

South Yorkshire not very long since had the reputation of being the most fiery colliery district in the kingdom, and the long list of explosions, involving the loss of hundreds of lives at a time, show that it is fully entitled to that pre-eminence. A great change, however, has taken place, and by the report of the various mines Inspectors it appears that Yorkshire last year stood at the top of the list as to freedom from fatalities with regard to its mining population. The deaths from accidents in mines for the county was 1 for every 522 persons employed, the average being 1 for every 309 persons.

MIDLAND INSTITUTE OF MINING ENGINEERS.—The first annual meeting of this institution was held on Tuesday, in the rooms at Barnsley. There was a large attendance of members, amongst whom were Mr. T. W. Embleton, of Methley, the President; Mr. P. Cooper, the Holmes Colliery, Rotherham; Mr. R. Southern, Old Silkstone Collieries; Mr. G. Kell, Messrs. Charlesworth's Collieries; Mr. C. Hodgson, Castleford and Normanton; Mr. Weeks, Barnsley; Mr. Warburton, Stanley, Wakefield; Mr. Bailey, Normanton; Mr. W. Maddison, Woolley, near Wakefield; Mr. Wheldon, Norwood Colliery, Chesterfield; Mr. A. Lupton, Chesterfield; Mr. W. Chambers, Thorncleiff and Chapelton; Mr. Minto and Mr. J. Beaumont, the Oaks Colliery; Mr. Miller, Stratford Main; Mr. Keightley, Middleton, near Leeds, &c. There was also present Mr. Morrison, of Newcastle, whose name was on the business roll to read a paper, but which, on account of the amount of business which had to be gone through, was postponed to a future meeting. The business commenced with the appointment of the officers of the council, and Mr. Weeks and Mr. Beaumont were appointed the secretaries to examine the mining. At the president holds office for three years he took his seat as usual. Mr. J. C. Mammatt was re-appointed secretary and treasurer, and the new council, which included the name of Mr. P. Cooper, was elected. Eight new members were elected. The report was then read, and showed that the Institute was in a prosperous state, having a considerable balance in hand. During the year several important papers had been read, eliciting a good deal of valuable information. The principal one being a series by Mr. Mammatt, Mr. Miller, Mr. Cooper, and Mr. Fowler, on the various methods of working coal, with a view of showing which was the most economical and safest system, and capable of producing the largest quantity of marketable coal. The papers were illustrated by a number of diagrams, and valuable maps, interesting papers as to the products obtained by different systems had been drawn up and published in the Transactions of the Institute. Considerable discussion took place as to the necessity for altering some of the rules, and it was agreed that the days for holding the meetings should be altered from the first Tuesday to the first Wednesday in every month, as on that day many persons connected with the collieries came to Barnsley on business.

Mr. Bailey read a highly interesting paper "On Signalling in Mines by Magnetic Power," and which he illustrated by a model of the machine or instrument. The subject is one of considerable importance, and, as the present mode of signalling, even from the bottom, is by no means perfect, any mode by which perfect communication can be maintained throughout the workings of a colliery would be a valuable addition to the present appliances for ensuring safety in our mines. An interesting discussion followed the reading of the paper, which was ordered to be printed in the Transactions.

After the usual votes of thanks the members adjourned to the King's Head Hotel, where they dined together. The chair was occupied by Mr. Embleton, the President. After the usual loyal toasts, that of "Success to the Midland Institute of Mining Engineers" was given and responded to. The health of the Chairman, as well as several other toasts, were given and acknowledged, and a most agreeable evening was spent by the members.

CHONTALES.—The details of the special meeting are reported in another column. It passed off most satisfactorily, the shareholders, as a body, evincing confidence not only in the direction, but also in the eventual results of the undertaking.

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From Mr. JAMES CROFTS:—A moderate amount of business is being transacted in the Mining Market, the quickly approaching dead season of the year being sufficient to keep business within narrow limits, and the movements that occur in quotations are mostly from *bona fide* influences. Tin sustains its high price without any sign of weakness. The benefits derived from the satisfactory range of prices during the half-year just ended is shown in a marked manner by the increased dividends the leading mines have been enabled to pay, and the period has proved very remunerative to adventurers in tin mines. A glance at the table below will also show that shares bought in some of the leading mines on Jan. 1 would yield a handsome profit on the original outlay.

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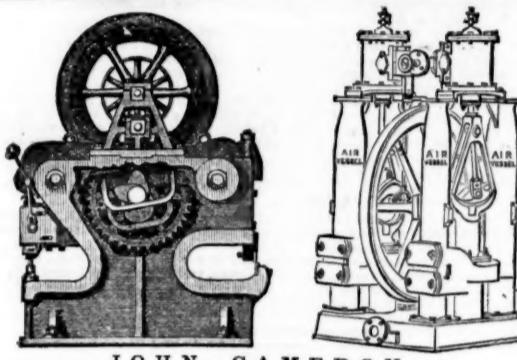
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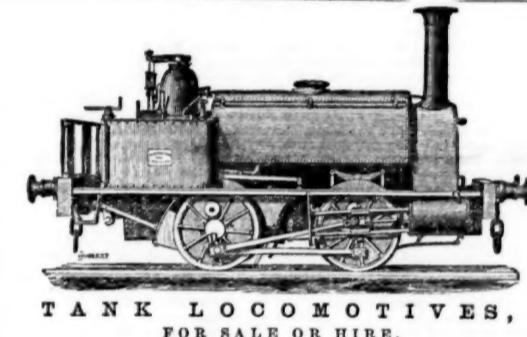
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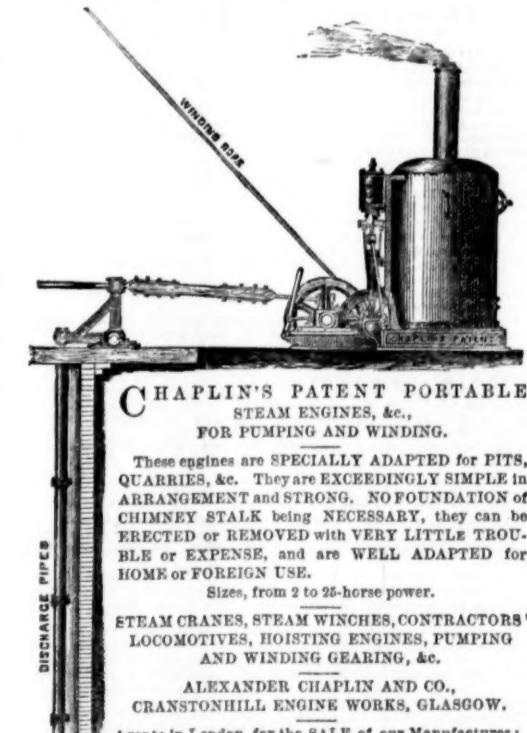


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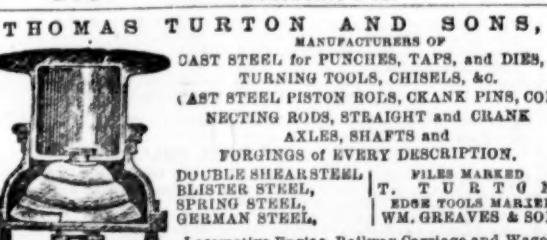
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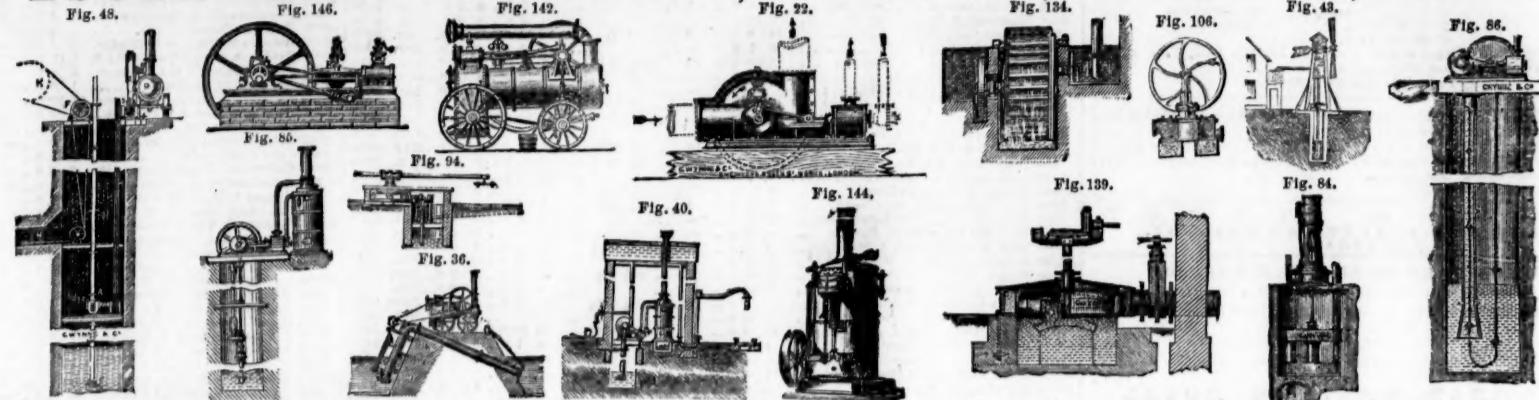


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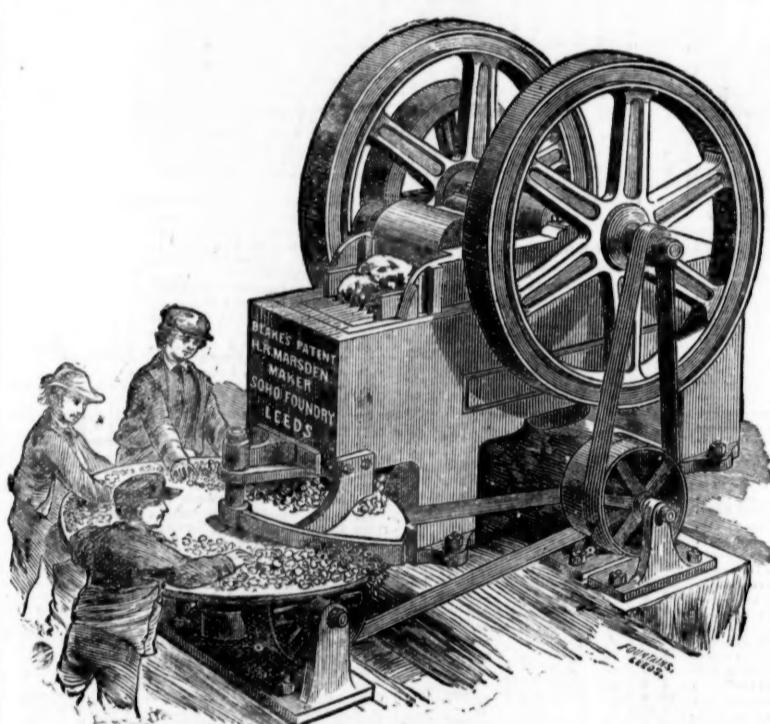
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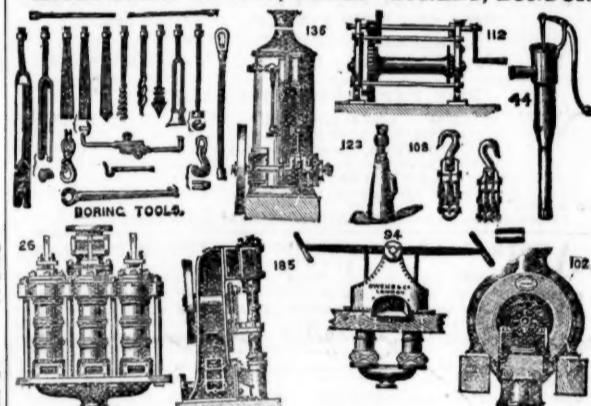
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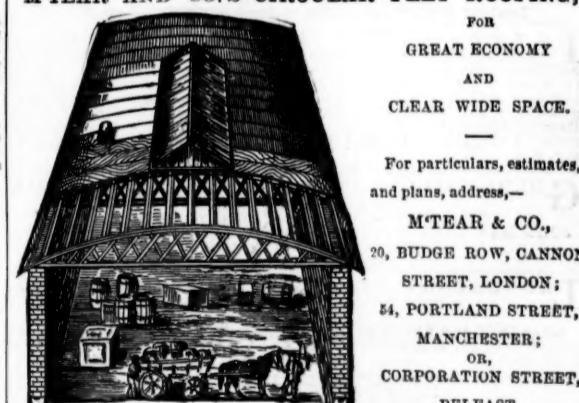
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will be HELD at the offices of the company, No. 8, Austinfriars, London, on
WEDNESDAY, the 20th day of July instant, at One o'clock P.M. precisely, for
the purpose of confirming, or otherwise, the following special resolution, passed
at the Extraordinary General Meeting held on the 4th day of July instant:—

"That the directors are hereby authorized to increase the capital of the company by a sum not exceeding £15,000, in shares of £10s. each, with a preferential dividend of not exceeding 15 per cent. per annum out of profits; the present shares to be entitled to 15 per cent. per annum in the second place, and then all the shares to rank alike for further dividends out of profits. Nevertheless, that the company may at any time after three years pay off the shares created for the above increase of capital, in one sum or by instalments, together with a bonus of not less than 25 per cent."

J. H. MURCHISON, London Manager and Secretary.

8, Austinfriars, London, 4th July, 1870.

Should the above resolution be confirmed, shareholders will have to accept and pay a deposit or first instalment of 10s. per share on their proportion of new shares (namely, one for every three now held) on or before the 25th July instant.

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BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
1500 Alderley Edge, c. Cheshire*.	10 0 0 .. —	..	10 6 8 ..	0 5 0 ..	Jan. 1869	1869	1869
6000 Boscaswell, t, c. St. Just.	1 0 0 .. —	..	0 2 0 ..	0 2 0 ..	Apr. 1870	1870	1870
200 Battalton, t, c. St. Just.	91 5 0 .. 280 ..	270 275	575 5 0 .. 10	0 0 ..	May 1870	1870	1870
2000 Bronfloyd, t, Cardigan*.	2 10 0 .. 3 ..	..	2 8 0 ..	1 6 ..	Apr. 1870	1870	1870
50/4 Welsh Consols, s-l, Cardigan*.	4 0 0 .. 3 ..	..	0 9 0 ..	0 2 0 ..	May 1870	1870	1870
6400 Cashwell, t, Cumberland*.	2 10 0 ..	..	0 9 0 ..	0 2 6 ..	Dec. 1869	1869	1869
916 Cargoll, s-l, Newlyn*.	15 5 7 .. 5 ..	4 5 ..	16 15 0 ..	0 10 0 ..	Aug. 1869	1869	1869
1280 Chantclere, t, Flint.	0 7 8 ..	..	0 1 0 ..	0 0 6 ..	Nov. 1868	1868	1868
2450 Cook's Kitchen, c. Illogan*.	10 0 0 ..	..	0 10 0 ..	0 10 0 ..	Feb. 1870	1870	1870
1000 Cornwall Hematite*.	10 0 0 ..	..	0 10 0 ..	0 10 0 ..	Feb. 1870	1870	1870
509 Cregharraws and Penkevill, t.	..	..	2 5 0 ..	1 5 0 ..	Apr. 1868	1868	1868
867 Cwm Elin, t, Cardiganshire*.	7 10 0 ..	..	32 3 8 ..	0 5 0 ..	July 1870	1870	1870
128 Cwmystwyth, t, Cardiganshire*.	60 0 0 ..	..	287 10 0 ..	2 0 0 ..	Mar. 1869	1869	1869
3000 Derwent Mines, s-l, Durham*.	300 0 0 ..	..	177 10 0 ..	2 10 0 ..	July 1868	1868	1868
1024 Devon Gt. Consols, c. Tavistock*.	1 0 0 .. 110 ..	95 105	1145 0 .. 0 ..	4 0 0 ..	May 1870	1870	1870
656 Ding Dong, t, Gyllyng*.	49 14 6 .. 18 ..	17 19 ..	6 0 .. 1 ..	0 0 0 ..	Dec. 1869	1869	1869
1432 Dolcoath, c. t, Camborne*.	32 4 6 ..	..	242 2 6 ..	3 10 0 ..	June 1870	1870	1870
12800 Drake Walls, t, Calstock*.	2 10 0 ..	11 ..	1 ..	2 3 ..	1 3 ..	1870	1870
6144 East Cardon, c. St. Cleer.	2 14 5 ..	43 ..	14 11 6 ..	0 3 0 ..	July 1867	1867	1867
300 East Darren, t, Cardiganshire*.	32 0 ..	..	182 10 0 ..	2 0 0 ..	Feb. 1870	1870	1870
6400 East Pool, t, c. Pool, Illogan.	0 9 9 ..	..	10 3 3 ..	0 4 0 ..	May 1870	1870	1870
1906 East Wheal Lovell, t, Wendron.	3 9 0 ..	35 1/2 ..	12 16 0 ..	2 0 0 ..	July 1870	1870	1870
2800 Foxdale, t, Isle of Man*.	25 0 0 ..	..	75 15 0 ..	0 10 0 ..	June 1870	1870	1870
5000 Frank Mills, t, Christow.	3 18 6 ..	3 ..	4 5 ..	2 6 ..	Apr. 1870	1870	1870
2950 Gawton, c. Tavistock*.	3 18 6 ..	..	0 3 0 ..	0 3 0 ..	Jan. 1868	1868	1868
15000 Great Laxey, t, Isle of Man*.	4 0 0 .. 18 ..	12 18 0 ..	10 0 0 ..	10 0 ..	June 1870	1870	1870
3000 Great Northern Manganese*.	5 0 0 ..	..	..	..	..	..	..
5908 Great Wheel Vor, t, c. Helston*.	40 0 .. 10 ..	10 ..	15 12 0 ..	3 6 ..	June 1870	1870	1870
10240 Gunnslake (Clitters), t, c.	4 19 0 ..	..	0 1 0 ..	0 1 0 ..	July 1870	1870	1870
656 Ding Dong, t, Gyllyng*.	49 14 6 .. 40 ..	39 41 ..	52 10 0 ..	1 10 0 ..	Feb. 1869	1869	1869
12000 Holmboath and Kelly Bray, c.	1 0 0 ..	..	0 3 0 ..	0 1 0 ..	Nov. 1869	1869	1869
10000 Killaloe, s-l, Tipperary*.	1 0 0 ..	..	0 7 0 ..	0 6 0 ..	Mar. 1870	1870	1870
165 Levant, c. t, St. Just.	10 8 1 ..	..	1101 0 ..	2 6 0 ..	Aug. 1869	1869	1869
12000 Llanrhystud, t, St. Cleer.	18 15 0 ..	..	529 0 ..	0 2 0 ..	Mar. 1870	1870	1870
3000 Maes-y-Safn, t, Flint*.	20 0 ..	..	4 ..	0 0 0 ..	Oct. 1868	1868	1868
9000 Marke Valley, t, c. Camborne.	4 10 6 ..	7 ..	1 0 0 ..	0 4 0 ..	Apr. 1870	1870	1870
1800 Minera Mining Co., t, Wrexham*.	25 0 0 ..	..	27				